

THE BUSINESS OF LIFE INSURANCE

MILES · M · DAWSON

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BUSINESS OF LIFE INSURANCE



THE BUSINESS of LIFE INSURANCE

BY

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CONSULTING ACTUARY

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of Life Insurance; Fellow of the Institute of Actuaries; Member
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Science," etc.



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INTRODUCTION

MANY books concerning life insurance have been published heretofore for the instruction of persons who are engaged in the life insurance business in one capacity or another. They will in some cases be found useful also to persons who merely patronise life insurance; and, when this is true, will amply repay study.

This book is published, however, for the special uses of the great public, composed of persons, nearly all of whom purchase insurance on their lives. Many of these also earn their livelihood by selling it, some by employment in the service of companies that provide it, and a very few in managing these companies. It is hoped and anticipated that just because this book has been prepared for the instruction of all who buy and hold life insurance policies, it will be of unusual interest and perhaps of uncommon utility to the agents of life insurance companies, their employees and their officers; but that is not the chief purpose.

In this volume it is intended to speak plainly, and fairly on all subjects, on the ground that

such is due the readers, and that the beneficent institution of life insurance is good enough to have the truth told about it.

An earnest effort is made to do full justice to the merits of life insurance and of the liberal benefits of the modern life insurance policy; and, on the other hand, the evils and defects are dealt with unsparingly.

This is a book of opinions, of the deliberate judgments which have been framed as a result of a quarter century's close and assiduous study and observation. It does not purport to be a mere narrative of facts without conclusions; instead it records the author's best-considered, thoroughly-formed and firmly-held convictions, set down without a desire to injure anybody, but with the purpose of serving all who read this book.

New York, June 28, 1905.

M. M. D.

CHAPTER I

FUNDAMENTAL NATURE OF LIFE INSURANCE

INSURANCE is indemnity. The earliest type of this is the bond of indemnity. A surety was the first insurer and the principal in the bond the first insured. Notwithstanding which, the giving of bonds by a corporation for the consideration of a premium is one of the most recently introduced forms of insurance.

It follows, therefore, that the issue of a policy promising to pay money upon the happening of a named event, which is contingent only and may or may not happen, is or is not insurance, according as the beneficiary of the policy would or would not be a loser by the event in an amount not less than the sum insured. Insurance can only indemnify against loss; more than this is gambling.

This may be put another way which will perhaps make the distinction between speculative or gambling policies and insurance yet plainer. We are, in the nature of things, subject to perils, arising out of the conditions of human life.

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Thus the owner of a house by the mere fact of his ownership becomes subject to the danger of loss or damage of his property by fire, lightning, explosion or collapse. He has no choice but take these chances if he continues the owner. To that extent the nature of things makes of him a speculator. In the same manner the mere fact of marriage compels the wife to take these chances as to the survival of her husband to perform the duties of a husband toward her and of a father toward her children, the mere fact of birth necessitates that the children take their chances likewise as to the survival of both parents to support and educate them, and the mere fact of the being alive of an individual subjects him to the perils of disablement by sickness or accident. From all of this there is no escape. Nature makes all of us speculators, of necessity, whether we will or not.

Though the unvarying laws of nature will not permit one to escape the risks which they impose upon him, he may render those perils nugatory wholly or in part by combining with others who at the outset appear to be subject to like risks, and by engaging in advance that each shall bear his proportion of the loss which actually falls upon some of their number. This is insurance in its most simple and obvious form. It is typical, likewise, and signifies that at the bottom all insurance is mutual. The

losses are expected to be met, not from the capital, but from the premiums.

In insurance, therefore, persons who, so far as they can themselves see or so far as the managers can discriminate, are equally liable to a given peril, contribute equally in proportion to the indemnity desired by each, small sums to a common fund from which those of their number who actually suffer loss in the given manner are indemnified.

For the individual, it is therefore a hedge, a counter wager, to cancel or offset the risks which nature compels him to take. It is the direct opposite of gambling, then, so far as the insured is concerned.

At first blush it may seem that it must be gambling for the company which for a premium assumes the risk for a consideration. This view, however, flows out of a wrong conception of the function of the company in the matter, which is really, in this regard, merely that of custodian of the premium fund. It will at once be seen that if the insured were to arrange for indemnity by means of a mutual fund, there would be no gambling about it at any point, by which it is not meant to say that the success of the scheme would be assured or that bad business management would not be able to defeat the purpose. But if the total losses that would take place among the insured were certainly

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known in advance and paid for then, or if not certainly known were made good after the event by assessments as agreed upon, payment being secured, it is clear that the individuals would be relieved of their risks and that no risk would be incurred by the company. In other words, the element of hazard would be entirely cancelled, except that in the latter case there might be variation in the price of the insurance.

When the insurance is furnished by a company with capital or surplus which answers as a given guaranty of stability, it becomes a business, instead of a speculation, the distinction being that while an individual who assumes a single risk either loses or gains thereby the whole amount involved, the company which takes many, by means of the aggregate business reduces the possible variations to narrow limits and really makes of insurance a business attended with less peril than almost any other.

Thus as to life insurance. During a given year, an individual either dies or he survives the year; the result is a hundred per cent loss or a hundred per cent gain, if one wagers upon the one life. But make 100,000 of these bets upon persons of the same age and like physical condition and the variation in the result will not be two per cent usually, instead of two hundred per cent.

There is nothing more uncertain than life and nothing more certain than life insurance.

The risk of death differs in important particulars from all other perils to which we are exposed or which are made the subject of insurance. The chief difference is that while other risks are hazards only, death is ultimately a certainty. At all times, therefore, it is a hazard, converging into a certainty. This does not mean that it is necessarily an increasing hazard at all ages, though it is at most ages; in the first year after birth, for instance, the mortality is heavier than in the second, and indeed the risk of death during the year diminishes each year throughout the period of early infancy. But whether taken from birth or from a later period when the liability to die becomes a rapidly increasing function, death is certain in the end. It follows, therefore, that insurance against death at whatever time it may take place, involves not merely providing against the hazard of death each year, but also provision to meet at the ultimate limit of human life an absolutely certain claim if one has up to that time been escaped.

Insurance differs from gambling also in yet another particular. The company appears not merely in the rôle of putting at stake the amount of its policy, but also as stakeholder, *i. e.*, as holder of the stakes put up by the in-

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sured, itself putting up no stakes, but merely making good its losses out of the forfeited stakes of those of the insured who have not suffered loss and so cannot make claim, and out of its other funds if necessary. But in event of loss, it does not pay its obligation and also return the policyholder's stake, the premium which he has paid. Life insurance policies are, however, sometimes issued which do promise the return of the premiums paid if death occurs within a certain period, or even, much more rarely, whenever death may occur. In the former case, in addition to a larger premium, other conditions, such as proportionate returns in surrender value, are always less favorable; and in the latter case the premium is made much higher, so that additional interest accumulations offset this.

It is this feature, however, that the company is stakeholder, and not under obligations to return the stake of the policyholder (*i. e.*, retains in any event all premiums or all interest upon the funds or both), which makes insurance for the whole period of life, and especially by single premiums, possible, in spite of the fact that the death of the insured is certain in the end.

This may be more clearly seen if it is considered how certain to incur a total loss of his stake a man would be who would put up one thousand dollars against any stake you please,

in the hands of responsible third parties, the stakes of both parties, with all interest earned upon the same, to be given to the winner of a bet that a given person will not die. He would have lost his money as soon as he made the bet, and the only uncertainty would be as to when the stakeholder would turn the stakes over to his adversary.

It was failure to see the necessity for providing for an increasing hazard, converging into certainty, which has caused many serious errors in the fundamental plans of some institutions formed to furnish life insurance, and the thing which separates plans of insurance into sound and unsound is precisely whether intelligent regard for this principle has guided the company in determining its rates of premium and the management and disposition of its funds.

CHAPTER II

THE SIMPLE MATHEMATICS OF LIFE INSURANCE

THE mathematics of life insurance is, when the term is used in a comprehensive sense, so considerable and so technical that to be able to apply it properly is the most essential qualification for what has become a distinct profession. The calculations of actuaries, on the whole, also are of a nature not readily comprehensible by persons who are not skilled both in mathematics and in insurance principles and practices. In the profession some of the higher developments of the science of mathematics are applied at times which renders the processes more puzzling to the man in the street.

Very nearly all of this, however, is due to the desire to use "short cuts" or quicker processes to arrive at the desired result. In other words, these formidable-looking rules and formulas are merely labour-saving devices, like the calculating machines which are often found in actuaries' offices. The principles by means of which the ordinary calculations by actuaries are made

are very simple, and may be explained in a few words.

The calculations are based upon a mortality table. This table shows how a certain large number of persons, as 100,000 or 1,000,000, setting forth from a given age, is diminished year by year by death. They are based upon actual experience, and when used for life insurance computations, upon actual experience among insured lives.

Of course, no company does have just 100,000 men set forth, for instance, from age 21 at the same time, and continue under observation until all have died. Nor do all come under observation, even, at a given age at all, nor all remain under observation until they die. What the companies have is the record of the actual exposures at each attained age, out of the lives insured by them, while under observation. That is to say, they can tell how many persons have passed through a certain year of age while insured by them, and how many of these have died. By dividing the number of the latter for each age by the number of the former, they can ascertain what percentage of those who passed through that year of age have in fact died. This is called the death-rate at that age.

As much the larger number of "exposures" in a general insurance experience at any given age at which new lives are accepted for insur-

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ance, and especially at the younger ages, would be likely to be persons who were not immediately subject to a normal risk of death, because freshly selected by medical examination, American actuaries hold that such a mortality table is not suitable for use in computing rates of premium. For this purpose a table, in order to be safe, should not show a lower mortality than is to be expected on lives, for instance, which are at least five years past the time of examination. Such a table is called an ultimate table, meaning that it represents the mortality fairly to be expected in a well-conducted company upon lives which have reached their ultimate death-rate for the various attained ages. Such a table the American Experience Table is considered to be; and, although not constructed in this manner, the Actuaries' Table fairly fulfills this condition.

By means of these death-rates the actuary can compute the rate of premium necessary to cover the risk of death for a single year. At first sight it would appear that this would also be the increasing annual premium which the company would need to charge year after year to furnish continuous insurance at its current cost so long as is required. Theoretically, this is true, and practically it might stand also for many years. But it would not do permanently, because when the insured lives become old the

premiums would rapidly increase, and the need for the protection would rapidly decrease. In consequence, persons at these ages who did not think that the life insurance at the price was a good speculation for their estates, in other words, the hale and vigorous, would drop out, leaving only lives which are not up to the average and are likely soon to fail.

The mortality table was based upon the average at these ages, as well as all others, which means upon a certain proportion of the lives being still healthy, as is always the case in a well-conducted company operating on the level premium plan. But when this condition no longer obtains, this mortality table does not represent the deaths to be expected, and therefore rates based upon it would not be sufficient.

No company has ever yet been able to apply this method of increasing premiums to cover the increasing hazards at the higher ages, and therefore no mortality experience suitable for such purpose is available. It would probably fix the ultimate limit of life at a very low age, comparatively, such as 75, instead of 96 or 100, because only lives which are practically certain to fail soon would continue the insurance beyond age 70 or thereabouts, when confronted with constantly and very rapidly increasing premiums.

Insurance on the increasing insurance plan

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is feasible, though usually not desirable, when it is applied only at the ages of youth and of middle life, but a change must be made to level premiums before old age comes on; for, with the rapid convergence of the mere risk into a certainty of death, no other form of insurance is practicable, except level premium insurance.

Yet all forms of level premium, whole life insurance, whether with premiums for life or for a term of years only, are precisely the mathematical equivalents of increasing premiums, and, if all men were clear-headed and fully informed, so that a man would carry his insurance so long as he wants it and no longer, and if at the higher ages men would not drop it rather than pay its average cost, when they consider their chances better than the average, it would be just as economical for a man to carry his insurance on the increasing premium plan, taking into account his payments and his indemnity, as upon any other plan.

To arrive at the method of computing a level premium, let us first consider how we would go to work to calculate the single premium. Let us assume the following mortality table to represent the experience to be expected:

LIFE INSURANCE MATHEMATICS 13

AMERICAN EXPERIENCE TABLE OF MORTALITY.

Age.	Number living.	Number dying.	Yearly proba- bility of dying.	Yearly proba- bility of surviving.
10.....	100,000	749	.007490	.992510
11.....	99,251	746	.007516	.992484
12.....	98,505	743	.007543	.992457
13.....	97,762	740	.007569	.992421
14.....	97,022	737	.007596	.992404
15.....	96,285	735	.007634	.992366
16.....	95,550	732	.007661	.992339
17.....	94,818	729	.007688	.992312
18.....	94,089	727	.007727	.992273
19.....	93,362	725	.007765	.992235
20.....	92,637	723	.007805	.992195
21.....	91,914	722	.007855	.992145
22.....	91,192	721	.007906	.992094
23.....	90,471	720	.007958	.992042
24.....	89,751	719	.008011	.991989
25.....	89,032	718	.008065	.991935
26.....	88,314	718	.008130	.991870
27.....	87,596	718	.008197	.991803
28.....	86,878	718	.008264	.991736
29.....	86,160	719	.008345	.991655
30.....	85,441	720	.008427	.991573
31.....	84,721	721	.008510	.991490
32.....	84,000	723	.008607	.991393
33.....	83,277	726	.008718	.991282
34.....	82,551	729	.008831	.991169

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Age.	Number living.	Number dying.	Yearly proba- bility of dying.	Yearly proba- bility of surviving.
35.....	81,822	732	.008946	.991054
36.....	81,090	737	.009089	.990911
37.....	80,353	742	.009234	.990706
38.....	79,611	749	.009408	.990592
39.....	78,862	756	.009586	.990414
40.....	78,106	765	.009794	.990205
41.....	77,341	774	.010008	.989992
42.....	76,567	785	.010252	.989748
43.....	75,782	797	.010517	.989483
44.....	74,985	812	.010829	.989171
45.....	74,173	828	.011163	.988837
46.....	73,345	848	.011562	.988438
47.....	72,497	870	.012000	.988000
48.....	71,627	896	.012509	.987491
49.....	70,731	927	.013106	.986894
50.....	69,804	962	.013781	.986219
51.....	68,842	1,001	.014541	.985459
52.....	67,841	1,044	.015389	.984611
53.....	66,797	1,091	.016333	.983667
54.....	65,706	1,143	.017396	.982604
55.....	64,563	1,199	.018571	.981429
56.....	63,364	1,260	.019885	.980118
57.....	62,104	1,325	.021335	.978665
58.....	60,779	1,394	.022936	.977064
59.....	59,385	1,468	.024720	.975280
60.....	57,917	1,746	.026693	.973307
61.....	56,371	1,628	.028880	.971120
62.....	54,743	1,713	.031292	.968708

LIFE INSURANCE MATHEMATICS 15

Age.	Number living.	Number dying.	Yearly proba- bility of dying.	Yearly proba- bility of surviving.
63.....	53,030	1,800	.033943	.966057
64.....	51,230	1,889	.036873	.963127
65.....	49,341	1,980	.040129	.959871
66.....	47,361	2,070	.043707	.956293
67.....	45,291	2,158	.047647	.952353
68.....	43,133	2,243	.052002	.947998
69.....	40,890	2,321	.056762	.943238
70.....	38,569	2,391	.061993	.938007
71.....	36,178	2,448	.067665	.932335
72.....	33,730	2,487	.073733	.926267
73.....	31,243	2,505	.080178	.919822
74.....	28,738	2,501	.087028	.912972
75.....	26,237	2,476	.094371	.905629
76.....	23,761	2,431	.102311	.897689
77.....	21,330	2,369	.111064	.888936
78.....	18,961	2,291	.120827	.879173
79.....	16,670	2,196	.131734	.868266
80.....	14,474	2,091	.144466	.855534
81.....	12,383	1,964	.158605	.841395
82.....	10,419	1,816	.174297	.825703
83.....	8,603	1,648	.191561	.808439
84.....	6,955	1,470	.211359	.788641
85.....	5,485	1,292	.235552	.764448
86.....	4,193	1,114	.265681	.734319
87.....	3,079	933	.303020	.696980
88.....	2,146	744	.346692	.653308
89.....	1,402	555	.395863	.604137
90.....	847	385	.454545	.545455

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Age.	Number living.	Number dying.	Yearly proba- bility of dying.	Yearly proba- bility of surviving.
91.....	462	246	.532466	.467534
92.....	216	137	.634259	.365741
93.....	79	58	.734177	.265823
94.....	21	18	.857143	.142857
95.....	3	3	1.000000	.000000

Let us assume that the funds which are not immediately required to pay death losses will be invested to earn interest at 3 per cent per annum. Also that death claims are payable at the end of the year, which is not the case, of course, but it is assumed usually for convenience in calculations.

At age 10, according to this table, out of 100,000 living at the beginning of the year, 749 die during the year. The risk of having to pay the claim at the end of the first year, therefore, is .00749. The present value now of each dollar to be paid at the end of one year is \$.97087, or of \$1,000, \$970.87. The present value of the chance of paying it is \$970.87 multiplied by .00749.

Out of the 100,000 starting from age 10, 746 are expected to die the second year, *i. e.*, in their eleventh year of age. The chance that any particular one of the 100,000 will be among them is .00746; the present value of the \$1,000 if it is paid at the end of two years is \$942.60; the

present value of the chance of having to pay the claim then is \$942.60 multiplied by .00746.

Proceeding in this manner, we find that the present value of the chance of paying the claim at the end of the fiftieth year is .02321 (since of the 100,000 setting out at age 10 2,321 die in their sixty-ninth year of age) multiplied by \$228.11, the present value of \$1,000 if paid at the end of 50 years. Similarly, .00001 multiplied by \$78.70 is the present value of the chance that a claim will fall due 85 years from now, because of the possible survival of a given one to the age of 95 and his death in that year of age.

When you add all these present values together, you have the present value of all the chances that \$1,000 will be paid on account of the death of the insured. To put it another way, you have the present value of the premiums on an increasing scale which he would need to pay throughout his lifetime, multiplied in each case by the probability that he will survive to that age to pay the premium. The result is the single premium, which will pay for his life insurance as long as he lives.

In paying for this insurance out of the single premium you may look at it in either of two ways, namely:

First: That each year so much of the interest upon the single premium, and of the single premium itself, if necessary, is taken as is required

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to cover the full, annually increasing premium for \$1,000 insurance. In this case, however, you must on the other hand rebate to the policy so much of this annually increasing premium as would pay for an insurance that year equal to the fund on hand, and when the insured dies the fund itself is rebated back in the same manner to those who survive.

Second: That the "actual insurance," as it is called, *i. e.*, the amount payable above what the insured's own fund will cover, is all that the company has at risk, and therefore all that need be charged for at the annually increasing rate of premium.

The mortality being the same, that is, according to the table, the two things bring the insured out with the same net fund on hand.

To compute the annual premium it is first necessary to find out what on the average one dollar, payable at the beginning of each year, so long as the insured lives, will be worth. Recourse is therefore had again to the mortality table, as follows:

The value of the first \$1.00 is 100 cents, because it is paid in advance.

If the dollar at the end of the first year were paid without reference to the survival of the insured, it would be worth \$.97087. But it is only payable by the 99,251 men out of 100,000 who survive the year, and the chance that this youth,

starting out at age 10, will be one of them is plainly .99251. The present value of the chance that this dollar will be paid is, therefore, \$.97087 multiplied by .99251.

Proceed in like manner for each successive age and add together the results. This gives you the present value of one dollar paid at the beginning of each year that the youth will enter upon. You also have in the single premium the present value of all he needs to pay to carry life insurance for \$1,000 as long as he lives. If you divide the latter by the former you have the number of dollars payable at the beginning of each year if the insured is living, which are equivalent in present value to the annually increasing premiums which are required to be met in order to carry his insurance as long as he lives. In other words, you have the sufficient annual premium.

These premiums are called "net" because just sufficient to meet the claims if mortality and interest prove to be precisely as was assumed. Though the foregoing explanation will not, it is hoped, be found difficult to grasp, it is not necessary to have mastered even so much in order to be in possession of knowledge of the test to which all kinds of premiums must respond, in order that they may be known to be sufficient. This test is:

Assume, for instance, that 100,000 youths of

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age 10 were to set forth, paying the annual premium alleged to be correct for that age. Assume that interest is earned precisely as expected and that the mortality is just as per the American Experience Table. The premiums are received the first year in advance from 100,000 youths. They are improved at interest for one year; \$749,000 in death claims, because of the deaths of 749 of the group, must be paid at the end of the year. The 99,251 survivors pay their second premiums. The fund is again improved at interest for one year, and the 746 deaths which take place that year are paid for. The process is continued until the survivors have reached 95, during which year of age the last of them pass away. If the premiums have been correctly computed, and if the assumptions as to interest and mortality have been exactly realised, there will be just money enough on hand at the end of the year of age, 95, to pay the last claims and nothing left.

This test of adequacy applies to all kinds of premiums and, whether the actuary's processes are easy to understand or difficult, they are, in computing premiums, directed toward bringing out results which will stand this test. If the premiums asked by any company or society are not such that, when worked out in connection with a large group and precisely on the assumptions according to which they are supposed to

have been made, they accurately fulfill the condition that they enable the company to meet the claims, without surplus or deficiency, they are manifestly incorrect. Of course, however, unless premiums and all calculations are carried out to very small fractions this test will not work out with absolute precision.

CHAPTER III

ASSESSMENT LIFE INSURANCE

THE description which has been given of the simple mathematical principles of life insurance will enable us to consider the claims of a form of life insurance which not inaptly might be called unbusinesslike life insurance. It is known as assessment life insurance. At one time, not very long ago, institutions which furnished protection on this plan transacted fully one-half the entire life insurance of the United States; but of late the decline of this business has been marked. The errors of the plan have shown themselves in actual practice. Some of the companies have reorganised as regular insurance companies on the level premium basis, not without hardships to their policyholders; others, being unable or unwilling to reform their methods, have failed. Yet others still continue upon the old plans, being given a longer lease of life than their fellows because of one or other extraneous interference with the normal operation of the plan.

Among the institutions which have longest been able to withstand the evil effects of the erroneous plan are the fraternal insurance societies, although they were the first to introduce it. This is due to two things, viz.: the extraordinary economy and efficiency of their democratic system of management, and the vitality which the loyalty and strong interest of their individual members give to them. On this account, also, they find it easier to pass over to sound plans than have assessment societies, which were conducted more nearly like business companies. The fraternal societies as a whole are now in the midst of such readjustment, some just entering upon it, some preparing to do so, and others just emerging. In spite of this, they are each year showing a large increase in membership, individual societies suffering a loss of membership usually only for a short time in consequence of readjustment.

We are not here concerned with the history of assessment societies, and will consider only their plans, endeavouring to make clear wherein they were defective and how the errors may be overcome.

The original assessment plan was as follows: Upon the death of a member one dollar was assessed against each living member, from the proceeds of which was paid a certain sum to his beneficiary. If the assessment produced more

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than this sum, the remainder was held and applied with future assessments to meet future claims, no assessment being called whenever the funds in the treasury enabled the society to pay the claim without recourse to a levy. If the proceeds of one assessment were not enough to pay the claim in full, it was provided that only so much as was actually realised should be paid.

Commercial solvency was thus assured for the society beyond peradventure. It could not by any possibility owe more than it could pay, for the simple and sufficient reason that it promised to pay only what it could collect.

But, of course, that was very different from what the members were led to expect. In the first place, after the society grew big enough to pay a claim in full, the members considered the question settled for all time that their certificates were good for the face at death. In the second place, after the society had been operating a few years they came to the conclusion that there was a normal death-rate that could be maintained and would keep the cost from increasing beyond certain limits, the new members, "new blood," they called it, keeping down the average age and thus limiting the cost. In support of this they quoted the experience of the regular companies, which often show a more or less stable death-rate of 12 or 15, for instance, per 1,000 members.

These expectations have been rudely disappointed, and the institutions which could not in the nature of things become commercially insolvent have miserably failed, unless reorganised. This result, too, was only to be expected. The faults of the plan made it self-limiting. The members were only getting that sort of protection cheap which can always be had cheap in any class of companies, viz., temporary insurance, not extending into old age; and the failure to limit the insurance by contract to the period before old age supervenes proved in the end the Nemesis of the mistaken societies. Their members confounded short term insurance with whole life insurance.

Let us examine the plan somewhat closely. Its unfairness strikes one immediately. Protection is given an entrant at 40, 50 or even 60 or older in some associations, at the same rate of assessment as at age 18 or 20. As all the money is being at once expended for the payment of death claims, and as the insurance is therefore without provision to meet the increase of cost in later years, it is evident that these members should pay that year in proportion to the cost at their present ages, *i. e.*, say according to the American Experience Table, in the ratio of \$7.81 per \$1,000 at age 20, \$9.79 at age 40, \$13.78 at 50, and \$26.69 at 60.

I have said "in the ratio," for, of course, in

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the earlier years of the association, when the members have all been examined very recently, the mortality cost should not be so high as these figures, but the ratios between them should be about the same. If the cost was two-thirds as much, but eight monthly assessments of one-twelfth of these amounts apiece would need to be collected from each; if three-fourths as much, then nine monthly assessments, and so on, but preserving the ratios of cost.

In the earlier years of these associations, however, the failure to charge according to age made little or no difference, as far as the popularity of the societies was concerned. Owing to the fresh medical examinations and the comparatively low average ages of the entrants the mortality was low enough to give a very low rate, much lower, of course, than in the regular companies on the level premium plan with which it was usually compared. The managers of the societies very imperfectly understood the nature of the forces which were at work, and had a fatuous disposition to believe all things possible besides; most of the members did not understand at all, or were quite content to obtain protection so cheaply and to let the question of its permanency take care of itself. A common saying was, "It will last as long as I need it."

Not only was this plan unfair at the outset; it became increasingly so as the years went by,

both to the members admitted early, but still remaining at young ages, and also more particularly to the very new members, upon the accession of whom, according to its own champions, the prospects for permanency depended. The following will make this clear:

Take the four members admitted at ages 20, 40, 50, and 60, whom we have already used for illustration, and observe the conditions twenty years later. They started out paying the same rates, although that very year they should have paid in the ratios of \$7.61 for 20, \$9.79 for 40, \$13.76 for 50, and \$23.69 for 60. Now they are each twenty years older and they are still paying the same rates, without regard to age, though now, according to the risk of death for each by the American Experience Table, they should be paying in the ratios of \$9.79, \$26.60, \$61.99 and \$144.47, respectively.

It will be observed that, not only is the youngest man discriminated against more and more heavily, but also that the annual cost to be met by all of them has much increased, and that, though still paying assessments at the same rate as at the outset, they will be paying more of them.

Yet more unfair was the plan to the new member, just admitted at age 20, who is now put on a par with the member now 80 as well as with new members at ages higher than himself.

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The consequence of this could not fail to be increased pressure as the years went by, the discrimination against the younger of the existing members driving them out through motives of self-interest, and the discrimination against new members causing them to seek protection elsewhere, perhaps in some newer society where these influences had not yet made themselves felt.

Another form of assessment insurance was introduced after a time which seemed to many of the friends of the system to answer this objection. It consisted in fixing the rates of assessments according to the ages upon admission, and is known as the graded assessment plan. Precisely as under the other plan, there was to be collected currently merely enough to pay the losses. The graduation of the assessments was usually arbitrary, but, even when fixed by reference to a mortality table, it was in accordance with the death-rates for the age upon admission. Let us consider our four men again. They will now set out with a proper rate of assessment for the first year, according to the cost at their respective ages, *i. e.*, let us say, in the ratios of \$7.81 for age 20, \$9.79 for age 40, \$13.78 at 50 and \$26.69 for 60. But twenty years later, they are still paying the same ratios—not, be it understood, necessarily these amounts per annum, but probably more because of the increased

aggregate cost—while now the actual cost of their protection is in the ratios of \$9.79, \$26.69, \$61.99 and \$144.47, respectively. This unfairness also bears yet harder upon the new members who are assessed the first year at correct ratios as among themselves but very incorrect in comparison with the old members.

Such a plan would, of course, by starting out the first year with a fair division of cost and gradually departing from it as it was longer continued, tend to give the society a longer lease of life than the other. But it is also plainly not of a permanent character and such a society has within it the seeds of necessary dissolution, unless it can readjust its rates upon a fairer basis.

Evidently both of these plans would fail to pass muster if submitted to the crucial test of a sound and permanent plan, set forth in the last article of this series. A knowledge of the applicability of that test would have rendered it impossible for any man to accept the assessment plan as permanent.

There is a third form of assessmentism which has nothing in common with these except that the right of unlimited assessment is retained though the premiums charged are in excess of the current cost and afford for a time at least some accumulation. Only too often this has been a cover for insufficient premiums, and these plans must be judged as all others by the ade-

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quacy of the premium. Whether it is adequate or not can usually be discovered by learning whether, voluntarily or otherwise, the company carries the full legal reserve, counting these policies as what they purport to be, in which case the right to assess is not likely to be exercised and may be disregarded, but in order to know whether the policies are valued as what they purport to be, the premiums should be compared with the standard net premiums by the American Experience Table for that form of policy, because in reorganising some assessment companies, departments have consented to treat old policies which purport to be whole life, as term insurance for one year at a time. It is also necessary to discover, certainly, whether the policy has been charged with a lien for the reserve or for deficiencies in past premiums.

CHAPTER IV

LEVEL PREMIUM COMPANIES

THE first form of life insurance was assessment. Its beginnings are ancient, perhaps even going back to the early Greek days, in the funeral benefits paid in certain guilds. Notwithstanding the defects of plan, such guilds have been able to maintain themselves for long periods, for two reasons, one that they offered other important and exclusive advantages as do trade unions, for instance, and the other that the benefits and the payments were so small that the want of equity in the contributions did not cause anybody through self-interest to quit the enterprise, as would have been the case, had the disproportionate costs and benefits been on a larger scale.

Likewise, the first attempt at whole life insurance was on the assessment plan. A company, called "The Amicable Corporation," was chartered in London in 1705, which conducted its business on the following basis, viz.: Members were received up to 45 years of age. Each paid

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in the same sum at the beginning of each year. At the end of the year the funds on hand were divided among the beneficiaries of the members who had died during the year. With many changes of plan and adjustments of rates and benefits, this company survived until 1866, in which year it passed out of existence by reinsuring all of its outstanding risks in a solvent company. It had long before eschewed the assessment plan, however, and was operating on the level premium plan, but the effects of its long continuance on an unsound plan had been unfavourable to its success.

In 1722 charters were granted to two insurance companies, the Royal Exchange and London Assurance, to be organised upon a stock basis and to transact all forms of insurance, including the insurance of lives. But these companies, which, by the bye, are yet flourishing, undertook nothing but short term insurance at very high rates.

About the middle of the eighteenth century the idea of founding a new company on the mutual plan to supply insurance for the whole period of life at level rates of premium, fixed by the age at entry, was brought forward by Thomas Simpson, whom the *Encyclopædia Britannica* calls "the greatest non-academical mathematician that England has ever produced," and James Dodson, formerly a professor of mathe-

matics in one of the universities, by means of public lectures in London, upon the subject of life insurance from a technical standpoint, as well as a practical. Simpson was, in fact, the discoverer of the method of computing a correct level premium, although the manner of computing the value of an annuity had been understood for a half century already.

Sufficient support having been secured to warrant it, application was made to Parliament for a charter. It was opposed both by the Amicable Corporation, which asserted that its charter was intended to be exclusive, so far as mutual life insurance was concerned, and by both the stock companies, on the ground that it would not be right, after granting them charters under which only a very small and unprofitable business had been secured or could be secured, to open the door to a new company which would compel a further division of this very limited business.

All these companies also objected to the granting of the charter on the ground that the level premium plan was an untried and very questionable experiment which the ignorant public should not be encouraged to essay.

Curiously enough, nearly seventy-five years later the New York Life and Trust Company, which has now long ago ceased to do a life insurance business at all, appeared in Albany in 1833 to protest against the granting of a life insur-

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ance charter on the chief ground named by the two stock companies.

The commissioners to whom Parliament referred the question, reported that in view of the untried and much questioned plan proposed to be used, they recommended that no charter be granted and also expressed the opinion that the promoters should be required to show their faith in the proposition by putting up ample capital. In closing, they clinched their argument by stating that if the organisers were really anxious to prove that their views were correct, they might, under the common law, form "an unincorporated voluntary association," in plain English, an unlimited liability partnership. And that is what they did, forming the "Equitable Society for the Assurance of Lives and Survivorships," now known as the Equitable Life Assurance Society of London, in the year 1762. This was the first level premium company.

It is noteworthy that the arguments put forward also by the parliamentary commission, viz.: that every life insurance company, even though on a mutual plan, should have a guarantee capital, has more than once been put forward since that time and the statute books of nearly every state to-day contain prohibitions of the organisation of new mutual companies—a thing which had an important influence in

turning the energies of men into founding assessment societies and has also resulted in contests as to the ultimate control of companies which are stock in form, though mutual in their operations.

The rates of the Equitable of London were based upon a mortality table, deduced from the mortality bills of London and constructed by Simpson. Fortunately for the experiment, this table was higher than the company's experience proved to be and the rates, therefore, were redundant. In the Deed of Settlement provision had been made both for distributing a surplus and for assessing for a deficiency; but it was as true then as now and ever that it is much easier to deal with a surplus than with a deficiency. The next table adopted was the famous Northampton which called for a large reduction in premiums and was applied with many misgivings and with a special addition to the premiums for contingencies. It transpired, however, that this table was also higher than was needed.

In view of the grave doubts which many men of affairs harboured of the feasibility of the Equitable's plan, it is especially fortunate that the mistake was charging more than was required. Had it been otherwise and the life insurance assumptions proved too low, as, for instance, the same table applied to annuitants proved unprofitable or the statistics upon which

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early rates for health insurance were based proved misleading, it might have been many years before level premium life insurance became successful.

Instead, the success of the Equitable was prompt and complete, and as its resources increased and especially as its dividends and bonuses to policyholders increased, it became very popular and many other companies were organised upon similar lines. The Equitable is in existence to-day, as efficient as ever, with about \$25,000,000 assets and paying excellent bonuses. It shut its doors to new members entirely at one time, but for many years has received them on favourable terms. From its foundation to the present time, it has never paid or allowed a commission or a salary or any other compensation, direct or indirect, for procuring new business. Its growth is slow, the new business amounting only to \$1,000,000 or \$2,000,000 per annum, which looks small, and is small, but does not prevent the company giving most excellent returns. The small new business is in the main, in fact, a reflection upon the ability of men to "attend to their own business" life insurance-wise, without the persuasive intervention of agents. There are other companies, also, which do not employ agents, and their patronage is similarly small. Under present-day conditions, it is unlikely that any more will be estab-

lished to operate on that plan, but level premium life insurance is now nowhere regarded an experiment. It is, instead, a very symbol for strength and solvency.



CHAPTER V

RESERVES, NATURE OF AND NECESSITY FOR

A FEATURE of all sound plans of life insurance excepting only the plan of premiums increasing as the cost increases—which also is certainly not sound, as has been seen, unless merged into a level premium plan or discontinued before old age—involves the payment during the earlier years of more than the insurance costs currently in order to avoid increasing the premium with the increasing cost. A level premium, to cover an increasing hazard, converging into certainty of loss, as does a whole life premium, calls for an accumulation of the excess of the premium over the current cost during the earlier years, the drawing back from this accumulation and its interest during the later years and the final application of the entire fund toward paying the insured's own claim whenever his death takes place.

This accumulation is called the reserve.

Considered as an aggregate, the reserves of a life insurance company may be thought of in two

ways, each of which has a special significance and helps to explain the nature and function of the reserve.

From one aspect, the reserve is called the unearned premium reserve. This means that the experience of the company being precisely as was assumed in computing the net premiums, as to mortality and interest, there should remain on hand after meeting all death claims a certain, definitely ascertainable sum of money which should be reserved on the principle that all the net premiums have been paid for insurance and that so much of them and their accumulations as are represented by the reserves has not been earned. The principle is the same as that the pro rata premiums of a fire insurance company up to the expiration of the policies have not been earned and should be reserved.

The other aspect is that of a reinsurance reserve, by which is not meant the amount which another company might conceivably accept, in fact, in addition to the future premiums, in order to take over the business, but what it would require if the premiums receivable were the net premiums, if interest and mortality were precisely as originally assumed and if no expenses were contemplated. The reason for this may appear more clearly hereafter. But the chief reason is because the purpose of the reserve is not primarily merely to enable a company to secure

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reinsurance, but instead to enable it to carry out its own obligations on the basis originally agreed upon. The expression "reinsurance reserve," therefore, is only an expression intended to indicate the necessity for a reserve.

Another mode of saying much the same thing is by the use of two terms employed by actuaries to signify two modes of computing the required reserves, viz.: "retrospective" and "prospective." The former has reference to the derivation and the latter to the uses. The former mode is by calculating how much would remain of the net premiums paid in the past, with their accumulations, the experience as to interest and mortality being precisely as assumed, and the latter by calculating the amount needed in the future, together with its accumulations and with the future net premiums, to enable the company to pay its claims, the experience in the future as to interest and mortality being precisely as assumed.

It is frequently urged that there is no such thing as an individual reserve. The argument is that the liability as to particular policies of the same kind and of the same duration upon persons of the same age is in no two cases the same. For instance, one of them may be dying, so that no more premiums can be expected from him, while the payment of his death claim is imminent; and another may be in as good physical

condition as when he was accepted. There is something in this contention, also, and it has some bearing upon the question of surrender values and also upon the question of initial expenses, as we shall see. Yet it is possible to show, by considering the individual as a microcosm of the company as a macrocosm, as it were, or, in other words, as an average individual of his age and class, how the individual reserve may be computed and the function which it fulfills.

Let us first consider it from the retrospective view. Out of the premium paid, accumulated for one year at the assumed rate of interest, deduct the cost of the first year's actual insurance, *i. e.*, of an insurance equal to the face of the policy less the reserve at the end of the year. The remainder will be the reserve itself. The necessary changes in order to make this a practicable process are simple and will not be further discussed here.

Then from the prospective view, the reserve is that sum which together with interest upon itself and the premiums to be paid in future, will meet the charges on the basis assumed for future costs of insurance as defined, throughout the life of the policy, and will be applied to help pay the claim upon the decease of the insured.

It will be observed that both of these views have reference to the policy as a going contract

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and are correct when it is so considered, because in that case, in charging for the insurance, all are treated as average risks, without regard to their then state of health. There might be occasion to view the matter somewhat differently, perhaps, when the policy is being surrendered upon a life presumably or certainly in good health or upon a life known to be moribund. In the former a surrender charge may be justified and in the latter a payment much in excess of the reserve; but this does not seem to alter the propriety of considering the reserve to be individual until some such disposition is called for.

This individual reserve is important because it enables the insured to see precisely in what way his money accumulates, what disposition is made of it in the matter of paying for his insurance, including the disposition which is made in event of his death, which unless this be understood, is always a good deal of a mystery, and the necessity for maintaining and guarding it.

The aggregate reserve which is the policy liability of the company, is equal to the sum of these individual reserves, though it may be separately computed without arriving at the individual reserves by calculating on the one hand the liability of the company on the basis of no further premiums receivable (which is the sum of the net single premiums at the attained ages, manifestly) and deducting therefrom the pres-

ent value of all net premiums receivable in future (which is, of course, these net premiums, multiplied in each case by the appropriate value of a payment of \$1.00 per annum for life). Or it may be computed by first ascertaining the individual reserves and then merely adding them together and, if the work has been accurately done, the result will be the same in either case.

In Great Britain the aggregate system is in vogue and valuation is treated as a taking of stock to be independently undertaken, usually once every five years. It is claimed for the system that it is more nearly self-explanatory, the present value of the obligations and of the premiums being separately set out in the reports, and also that it involves less time and labor. There is something in each of these claims, though, as to the latter, the class of labour required to make a good group or aggregate valuation is more skilled and better paid than the clerks who fill in sheets in a seriatim valuation, and as to the former, what is gained in clearness as to the meaning of the reserve is perhaps offset by the difficulty the layman has in discovering what reserve is held against his own policy. Some companies might not think that an objection, however.

In the United States practically all valuations are seriatim. Tables of individual reserves are prepared and from these the valuation sheets

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are filled out, showing the reserve for each policy. These are added up and the total is returned as the reserve. The checking is easy and the liability to error very little. The facility of making the valuation is such that all companies are valued every year, many of them oftener than once a year; and a few contrive by a system of reserve bookkeeping to keep track of their reserves day by day, or at furthest month by month. This may indicate that, while theoretically the group process should be shortest and easiest, in practice the contrary is true. Another advantage is that the seriatim system makes for uniformity; the variations under the aggregate system, caused by the employment of different "short cuts" are sometimes very considerable.

CHAPTER VI

THE PARTITION OF THE PREMIUM

SOME years ago an erroneous impression was created in the minds of many who were interested in the principles of life insurance by the statement in a very clever book upon the subject, that a life insurance premium is separable into three "elements," viz.: expense, mortality and reserve. The misinformation which this conveyed was not so much in the bare statement as in the inferences which would naturally be made and were in fact generally made after reading it. And the erroneous impression was made more definite by printing as an illustration a page of figures, showing the separation of whole life premiums into these "elements."

One would naturally understand, of course, from the foregoing statement, that a certain fixed percentage of each premium is expected to be used for expenses, that another definite portion is used to pay current death-losses and yet another to accumulate into a reserve. If this were true, as stated, can one conceive what the

reserve could be for? To pay the certain claim, if one lives to the end of the table, was the answer given. But in that case and if all the death-losses are paid by the mortality "element," what is done with the policy's reserve when the insured dies?

These questions the readers of this series should already be able to answer; but the idea that the reserve is "the fifth wheel of a waggon" naturally got abroad very promptly after this book appeared.

The following explanation is needed to correct these false impressions: It is true that usually, though by no means always, a certain part of each premium, the same every year, except that some companies make it larger for the first year, is "loading," added to a net premium, sufficient merely to provide the guaranteed benefits, in case the assumed rate of interest and assumed mortality is exactly realised, for the purpose of providing a fund from which expenses may be paid, contingencies be met and dividends to policyholders be derived in part. But this loading is not by any means either the measure of justifiable expenditure as to the individual policy, nor when it is the full loading on full participating premiums is it fairly expected that the expenses will absorb all of it.

But the worst misconception is as to the division of the net premium into "mortality" and

“reserve.” The illustration printed in the book gave this division as it really stands for just one year, the first after the policy is issued. The “mortality element” was the cost of the insurance for that year, that is, the cost of carrying an insurance equal to the face of the policy less the reserve at the end of the year, mortality being according to the table for that age. The next year the net actual insurance would be smaller and the mortality rate larger; in consequence the “mortality element,” or cost of insurance, would be different, and, since the amount which remains in reserve is the remainder of the net premium, which does not differ in amount from year to year, it follows that the “reserve element” differed also from the amount of the year before. And so from year to year, the line between the mortality and reserve “elements” shifts. On an ordinary life policy, after the lapse of years, the “mortality element” comes to exceed the whole net premium, and each year something is withdrawn from the reserve accumulated, in order to enable the policy to meet its share of the company’s death-losses.

The following is an illustration of this, by the Actuaries’ Table and 4 per cent., taken from Elizur Wright’s “Savings Bank Life Insurance”:

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ACTUARIES' TABLE, 4 PER CENT. INTEREST—DEATH ONLY.

Age at entry, 32. Gross premium \$24.10. Net premium, \$18.04.

Year of Pol.	Margin.	Insurance		Self-Insurance	
		Normal Costs of Insurance.	Com- pany's Risks.	Deposits.	Reserve.
0	6.06	8.33	989.90	9.71	
1	6.06	8.40	979.47	9.64	10.10
2	6.06	8.47	968.70	9.57	20.53
3	6.06	8.55	957.58	9.49	31.30
4	6.06	8.63	946.10	9.41	42.42
5	6.06	8.70	934.23	9.34	53.90
6	6.06	8.78	921.97	9.26	65.77
7	6.06	8.86	909.30	9.18	78.03
8	6.06	8.93	896.20	9.11	90.70
9	6.06	9.01	882.66	9.03	103.80
10	6.06	9.10	868.67	8.94	117.34
11	6.06	9.24	854.26	8.80	131.33
12	6.06	9.44	839.48	8.60	145.74
13	6.06	9.68	824.36	8.36	160.52
14	6.06	9.98	808.95	8.06	175.64
15	6.06	10.09	793.27	7.95	191.05
16	6.06	10.66	777.32	7.38	206.73
17	6.06	11.02	761.11	7.02	222.68
18	6.06	11.41	744.66	6.63	238.89
19	6.06	11.83	727.99	6.21	255.34
20	6.06	12.27	711.10	5.77	272.01
21	6.06	12.74	694.03	5.30	288.90

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Year of Pol.	Margin.	Insurance		Self-Insurance	
		Normal Costs of Insurance.	Com- pany's Risks.	Deposits.	Reserve.
22	6.06	13.22	676.78	4.82	305.97
23	6.06	13.74	659.38	4.30	323.22
24	6.06	14.27	641.83	3.77	340.62
25	6.06	14.81	624.14	3.23	358.17
26	6.06	15.38	606.34	2.66	375.86
27	6.06	15.98	588.45	2.06	393.66
28	6.06	16.64	570.53	1.40	411.55
29	6.06	17.33	522.61	.71	429.47
30	6.06	18.06	534.73	— .02	447.39
31	6.06	18.81	516.92	— .77	465.27
32	6.06	19.60	499.22	— 1.56	483.08
33	6.06	20.41	481.65	— 2.37	500.78
34	6.06	21.26	464.26	— 3.22	518.35
35	6.06	22.13	447.08	— 4.09	535.74
36	6.06	23.01	430.13	— 4.97	552.92
37	6.06	23.89	413.42	— 5.85	569.87
38	6.06	24.79	396.98	— 6.75	586.58
39	6.06	25.69	380.82	— 7.65	603.02
40	6.06	26.60	364.96	— 8.56	619.18
41	6.06	27.51	349.41	— 9.47	635.04
42	6.06	28.43	334.19	—10.39	650.59
43	6.06	29.34	319.31	—11.30	665.81
44	6.06	30.24	304.77	—12.20	680.69
45	6.06	31.14	290.58	—13.10	695.23
46	6.06	32.06	276.78	—14.02	709.42
47	6.06	32.93	263.34	—14.89	723.22
48	6.06	33.79	250.25	—15.75	736.66
49	6.06	34.58	237.46	—16.54	749.75

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Year of Pol.	Margin.	Insurance		Self-Insurance	
		Normal Costs of Insurance.	Com- pany's Risks.	Deposits.	Reserve.
50	6.06	35.29	224.90	—17.25	762.54
51	6.06	35.95	212.52	—17.91	775.10
52	6.06	36.52	200.54	—18.48	787.48
53	6.06	37.08	188.05	—19.04	799.76
54	6.06	37.64	175.95	—19.60	811.95
55	6.06	38.18	163.93	—20.14	824.05
56	6.06	38.78	152.06	—20.74	836.07
57	6.06	39.48	140.44	—21.44	847.94
58	6.06	40.18	129.08	—22.14	859.56
59	6.06	40.99	118.11	—22.95	870.92
60	6.06	41.98	107.73	—23.94	881.89
61	6.06	43.14	98.14	—25.10	892.27
62	6.06	44.44	89.52	—26.40	901.86
63	6.06	46.40	82.60	—28.36	910.48
64	6.06	48.17	77.24	—30.13	917.40
65	6.06	46.65	70.08	—28.61	922.76
66	6.06	40.75	56.50	—22.71	929.92
67	6.06	.00	.00	—18.04	943.50
68					1,000.00

It will be observed also that the “cost of insurance” or so-called “mortality element” does not pay for insurance for the whole amount of the policy, but only for that amount less the reserve upon the policy, which reserve is applied toward paying the claim. And this also indicates that the aggregate amount of the “mortality elements” do not pay all the death-losses, but

only the death-losses, less the reserves upon the respective policies.

These facts having been once comprehended, it is apparent what mischief the misconceptions would work. The misconception about loading has led many an ill-advised manager to consider the whole amount paid in by policyholders as loading, legitimate spoils, instead of saving some part, if possible, for dividends. And the erroneous impression that losses were paid entirely from the "mortality element" gave rise to a peculiar form of assessment life insurance which was in fact an attempt to do a level premium life insurance business under a charter, permitting unlimited assessments, but at premiums designed and represented to be level, though they were inadequate and could not possibly carry the contracts through.

From the erroneous impression, also, that the reserve was only a needless excrescence there arose a form of reserve which was represented to be superior, because not a liability. It consisted in collecting a percentage addition to the "mortality element" which should be reserved in a special fund for contingencies, such as "mortality beyond the table," "a death-rate higher than 10 per 1,000," or what you will. All of these, of course, wholly missed the real import of the reserve, which is to maintain the premium level, although the hazard is increas-

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ing and will ultimately become a certainty of loss.

On these plans several large and apparently flourishing societies were built up and their re-organisation upon sound plans or their utter failure has been one of the features of the last decade.

CHAPTER VII

KINDS OF LIFE INSURANCE POLICIES

UP to this time the only forms of life insurance policies considered have been those which are payable only upon the death of the insured and premiums for which are payable throughout life, either by the same amount each year or by increasing premiums as the risk of death increases or by assessments the same for all ages or fixed according to age at entry. Of these we have found only the first-mentioned to be entirely and permanently feasible.

In the course of the reasoning which has made this clear, we have incidentally shown how to find the net single premium for such an insurance, *i. e.*, the sum which, paid in advance, will supply funds to pay for the insurance throughout the life of the insured. We also found that the way to compute the net annual premium required was to find this net single premium first and then divide it by the present value of \$1.00 each year, so long as the insured lives, which will give the number of dollars each year as long

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as the insured lives, that are equal in present value to the net single premium or present value of all that will be required to pay for the insurance for the lifetime of the insured.

But it may be desired to pay for the insurance in some other way than either in advance or by annual premiums as long as the insured lives, as, for instance, by annual premiums for ten years, fifteen years or twenty years.

In order to compute these it is only necessary to calculate what the present value is of \$1.00 each year in advance that the insured lives, but not beyond ten, fifteen or twenty years, respectively. Then divide the net single premium by this to find out how many dollars, payable in this manner, have the same present value as the cost of the insurance throughout the life of the insured.

Of course, if the premiums are payable in this manner, the cost of insurance each year will be less than on a whole life policy issued at the same age at annual premiums, because the actual insurance is less. The actual insurance, it must be remembered, is the face of the policy, less the reserve, and the reserve on the limited payment policy is larger. The portion of each premium which goes to reserve is larger, both because the net premium itself is larger and also because the amount deducted for current cost of insurance is smaller. Of course, after the premium-paying

period has elapsed, all the current costs of the insurance are deducted from the accumulations of the reserve.

Since the net single premium is the present value of all of the future costs of insurance, and since after no further premiums are to be paid the company must have in hand at all times for the protection of the policy the present value of all future costs of its insurance, it follows that the reserve on a paid-up policy at the end of any policy year is just the net single premium for the age attained.

It follows, also, that a net single premium produces each year income enough to meet the current cost of the insurance charged against it and also to augment it to the amount of the net single premium at an age one year higher.

Policies are also issued for short terms at annual or single premiums. To calculate the single premium, the annual costs of the protection throughout the term are discounted by interest and mortality to their present value and multiplied by the chance of surviving to pay the same, precisely as in the case of whole life insurances; and to get the net annual premium, this net single premium is divided by the present value of \$1.00 per annum, payable for the same term of years, provided the insured survives.

A familiar and favourite form of insurance is endowment. It consists of a promise to pay the

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sum insured in event the insured survives the period or in event he dies during the period. The latter portion of the promise is plainly a term insurance. The former is what is known as a pure endowment, viz.: a promise to pay a sum of money in event of the survival of the policyholder only. The net single premium for it is found as follows, taking age 10, the American Experience Table and a term of twenty years for the purposes of the illustration:

If \$1,000 were payable certainly at the end of twenty years it would have a present value of \$553.68, interest being taken at 3 per cent., annually compounded. But it is to be paid only in case the insured, aged 10, shall survive. The table shows that out of 100,000, 85,441 will survive. Therefore, it will be necessary to pay only 85,441 out of 100,000, instead of the whole 100,000, if so many were insured. The chance of this individual being one of them, in other words, his chance of surviving, is .85441, therefore; and, if we multiply \$553.68 by .85441, we shall have the present value of his prospect of receiving the endowment.

Add this net single premium for a pure endowment to the net single premium for a term insurance for the same period, covering the prospect that the sum insured will be paid because of his death, and you have the total net single premium for the endowment insurance.

Divide this by the present value of \$1.00 per annum for twenty years, payable each year only in case the insured survive, and you have the number of dollars per year which are equivalent to the net single premium and which will, therefore, furnish the promised benefits.

Not infrequently the proceeds of a policy are made payable in instalments, for ten, fifteen or twenty years. In such case, the insurance premium is taken for such amount of insurance in one sum as will provide the instalments. Thus, for instance, at 3 per cent., twenty annual instalments of \$50.00 per year in advance have a present value of \$766.19. Accordingly, the company charges for a promise to pay the insurance in these instalments the same premium which it would charge for an insurance of \$766.19 in one sum.

Sometimes, especially in recent years, the insurance is for instalments payable for the life of the beneficiary, or for twenty years in any event, and for as much longer as the beneficiary survives. The computation of the premiums for these benefits is a little more complex and will not be described here; but the principle is unaltered, viz.: that the premium is the same as would be charged for a lump sum insurance of equal value.

Another form of insurance is for guaranteed interest bonds, the sum insured not payable im-

mediately upon the death of the insured or upon his survival (*i. e.*, the feature applied, in the case of an endowment, sometimes to the insurance only, sometimes to the pure endowment only and sometimes to both), but, instead, interest upon the nominal principal sum, payable for a term of years, such as twenty, and then the principal sum itself payable. Sometimes the interest is payable throughout the life of the beneficiary and then the principal sum is to be paid.

If the interest is the rate which the company is really willing to guarantee that it will earn upon its funds, nowadays rarely more than $3\frac{1}{2}$ per cent. and in many companies only 3 per cent., the nominal principal sum in such policies is the actual sum insured. But frequently the guaranteed rate of interest is 4 per cent. or even 5 per cent., when in point of fact in all its calculations the company only counts upon realising 3 per cent. or $3\frac{1}{2}$ per cent. In such case the additional amounts to be paid for interest are provided for by increasing the actual sum insured and for which a premium is charged, by the present value of the extra instalment of $\frac{1}{2}$ per cent., 1 per cent., $1\frac{1}{2}$ per cent., or whatever it may be, upon the nominal principal.

Thus, suppose an endowment policy has been issued for the nominal principal of \$1,000, promising that at the end of twenty years or at the

prior death of the insured, interest shall become payable at the end of each year at 5 per cent. for twenty years, at the end of which term the principal of \$1,000 shall be paid. And suppose that the company really expects to realise only 3 per cent. upon its funds. It must provide the extra 2 per cent., then, in some other manner. This is \$20.00 per year, payable at the end of each year, for twenty years after the close of the endowment period or prior death of the insured; and, taken by itself, is merely an instalment insurance for \$20.00 per year for twenty years, on the twenty-year endowment plan. The present value of twenty instalments of \$20.00 per annum at the end of each year at 3 per cent. interest is twenty times \$14.8775 or \$297.55. It follows, therefore, that the company must charge a premium which will furnish a lump sum insurance of \$1,297.55, in order to guarantee these benefits. If the "guaranteed interest" feature applies only to the insurance in event of death, it need only charge this extra premium for the term insurance part; if to the pure endowment feature, then only for that part; but if to both, then for both.

The actual returns upon the proceeds of the policy will, of course, be only 3 per cent.; and it is as if the proceeds, \$1,297.55, had been paid over in cash and the insured or his beneficiary, as the case may be, had then bought a bond, pay-

ing 5 per cent. interest, with the proceeds, paying therefore a premium of \$297.55 on each \$1,000, which reduces the net yield to 3 per cent.

Another form of insurance which is sometimes somewhat puzzling is known as "return premium" or less frequently "guaranteed mortuary dividend" insurance. It provides that in event of death during the specified period, in addition to paying the face of the policy the company will also return all or a certain part of the premiums. Rates for these benefits are made by finding the present value or net single premium for an insurance of \$100 the first year, \$200 the second year, etc., throughout the term and dividing these by the corresponding values of \$1.00 per annum throughout the term, if the insured survive. These are the rates, then, for an increasing insurance of \$100 per year and the rate for an increasing insurance for the amount of the desired premium return may be computed by a very simple algebraical artifice. It is then added to the regular premium.

CHAPTER VIII

SURPLUS, WHENCE DERIVED AND HOW ASCERTAINED

THE first life insurance company, organised to do a level premium business, the Equitable of London, provided in its deed of trust, as has already been stated, both for the return of the surplus if the premiums should prove redundant and for assessment against the insured if they should prove insufficient. It was a purely mutual company. Fortunately, the event showed that the mortality table employed exhibited a considerably higher death-rate than was actually experienced, and in consequence there was a surplus to divide. This was apportioned to the policyholders, not in dividends in cash as had originally been contemplated, but in "reversionary bonuses" or additions to the sums payable at death.

In order to see from what sources the surplus of a life insurance company arises, it is best to cast a look back over the constitution of the premiums. The net premiums, it will be remembered, are so calculated that they are accurately

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sufficient to furnish the benefits and no more, in case interest is earned precisely as assumed, mortality is just as assumed and all policies are maintained in force until maturity as endowments or death. To these net premiums, something has been added in loading, to cover expenses, contingencies and perhaps a provision to increase the surplus.

It is manifest, first of all, that if the interest proves to be at least equal to the rate assumed and the mortality not to be higher than was assumed, no part of the funds being lost or wasted, there will be no pressure upon the loading on account of contingencies. In that case, if the contribution of the policy to expenses is less than the loading—or, better put, if the aggregate loadings exceed the aggregate expenses—there will be a margin here for surplus.

Manifestly, too, if there are not so many death-losses, or, more accurately, so much required to pay the death-losses, as was assumed, there will be a surplus there, also.

And, if the rate of interest realised upon the mean assets is higher than the rate assumed, this in turn will result in surplus. Of course, waste of the assets will offset this, such as losses on investments, etc.

If some part or all of the individual reserves of members who discontinue is forfeited, all of this at first appears to be gain to the other mem-

bers. But both reasoning and experience show that this may easily prove to be otherwise. In the first place, it will at once be seen to be an anomaly that any business should really be the gainer by losing custom. Some part of the apparent gain, also, may be offset by the "adverse selection," as it is called, which is exercised, it is thought, by those who discontinue, the healthy being more disposed to discontinue and the failing to continue at all hazards. But far beyond this in importance is the increased expenditure for new business, which, experience shows, becomes necessary when the public has had extended experience with a scheme in which one must persist or lose much or all of the benefits for which he has already paid. In all countries the companies which have established a reputation for generous dealing with retiring policyholders, procure their new business at rates of commissions markedly lower than the usual rates paid by other companies in the same field. Moreover, careful students of the subject will find, first, that these companies do in point of fact pay the largest dividends to policyholders; second, that when companies have become less liberal, they have perforce increased commissions after a time, with rare exceptions and the exceptions attended with declining business; and, third, that when other companies have adopted more liberal conditions, they have been

able usually to reduce commissions without loss of agency efficiency.

The difference in this regard is so marked that when the writer investigated the subject some years ago, he discovered that in two companies, possessing otherwise almost exactly equal capability for producing surplus, one forfeiting everything upon discontinuance and the other not even forfeiting the current year's surplus, the two companies differing as to their policies also in every other regard, the one that had been most liberal had really earned and returned the largest dividends at the end of ten years on the same form of policy. It appeared, therefore, that the policyholders in the other company had been at the risk of forfeiture of all their reserves and surplus, without any compensating benefit. The reason soon appeared, upon an examination of the statistics of the experiences of the two companies, viz.: Starting at not far from the same expense rate at one time, the company which indulged in forfeitures had drawn away from the other company until it was using very nearly 10 per cent. of the premiums more for expenses, and this was almost wholly due to increased cost of new business. Since then it has adopted a different policy and in consequence of the liberal features has introduced lower commissions and materially reduced its expense rate.

It is believed that a sufficient charge can be made against reserves, in fixing surrender values, to cover any possible "adverse selection" by healthy lives retiring and poorer lives persisting, without impairing the popularity of the plans; and even that a very moderate additional margin might also be withheld. But it is now certain that more than this increases the disposition to wait about taking life insurance "until I can see my way clear through," to regard it a thing not to be undertaken and dropped when no longer required, without loss; and therefore is more than compensated by the increased expense necessary to induce men to insure their lives. In addition to the illustration referred to, very recent illustrations are furnished by the comparisons of dividend results in the American company, most famed for its liberality to policyholders, with the results of dividends in leading companies which have sought to augment their earnings by forfeitures. A comparison of the expense cost in these companies, and especially of the cost of new business, will usually show clearly what has offset the gains. It seems to be the operation of an inexorable law of compensation.

The crucial test of the earnings of a life insurance company is, of course, its balance sheet. When it has covered with good assets its matured liabilities and provided the portion of the

present value of its unmatured obligations, in excess of the present value of future premiums available to meet them, in other words has also covered its reserves, whatever remains is surplus.

If other means of ascertainment are employed, such as computing the gain from each of the foregoing sources separately, it is wise always to put the whole in the form of a profit and loss statement, starting with the surplus according to the balance sheet at the beginning of the year and exhibiting at the close the surplus according to the balance sheet at the end of the year.

Of such a character is the Gain and Loss Exhibit, which a few of the State departments, viz.: Wisconsin, Minnesota and South Dakota, refusing to be influenced by the objections of some of the companies, as other departments have been, insist upon the companies filing each year. Study of it will give a good conception of the nature of such a profit and loss statement, though, if the companies would aid to perfect it, instead of opposing its use in the published reports, it could be made more accurate and representative. It is, however, readily understood and will repay examination on the part of anybody who wishes to understand the principle of ascertainment of the sources of life insurance surplus.

In connection with the apparent gains upon

surrender in the exhibit, it should be borne in mind that the sum named is the excess of the reserve held against these policies over the surrender values allowed and does not take into account adverse selection to be made good, nor, what is really much more important, the fact that for several years after the issue of a policy in most companies, the reserve is in excess of what can possibly have been accumulated from the premiums upon the policy, after meeting the expense chargeable thereto, including cost of procurement, because the reserve is computed by them on the basis that the loading for expense is the same each year, while the actual expense is much higher the first year; and therefore to pay the full reserve would be a loss. The actual profit from this source is not so great as it appears, not to mention the offset of increased expenses.

CHAPTER IX

SURPLUS, HOW APPORTIONED AND APPLIED

THE apportionment of surplus among the policyholders has always been a matter concerning which a variety of views have been held. The first company to be established on a level premium basis and which needed to interest itself in the matter, provided in its deed of settlement for cash dividends which apparently should have been either percentages of the premiums paid, or, possibly, rebates of the overpayment, accurately ascertained according to the derivation of the gains. But in practice, when it came to allocate the surplus the first time under the direction of the company's actuary, it declared bonuses as paid-up additions to the sum insured, the same upon policies which had been in force the same number of years, without regard to age upon admission or other differences.

A bonus system of this general nature, *i. e.*, giving the profits in increased insurance either by adding a uniform amount each year or by compounding, that is, adding a uniform percen-

tage upon all previous bonus additions, as well as the original sum insured, has prevailed in Great Britain against all suggestions for a change.

A somewhat similar system was at first used in the United States, similar at least to the extent that dividends were paid in bonus additions. In both countries, however, the pressure for cash returns caused the privilege to be granted of cashing the bonus for its present or net premium value, as a paid-up insurance.

In the United States this soon led to the introduction of cash dividends, and as interest returns were heavy, premiums good and expenses and mortality low, the cash dividends ruled large and consequently that plan became most popular here.

Division of surplus in the uniform or compound reversionary bonus manner must manifestly be undertaken without too close observation of the principle that the surplus arising from the policyholder's own premiums should in each case be returned. The nature of the system requires that another rule shall be followed, not necessarily to the complete exclusion of that principle, but so far so that attention to it can scarcely be given beyond loading the premium originally, so as to make this form of division as nearly just as possible under the usual circumstances.

In this country, however, under the pressure of the cash dividend plan or at least of a reversionary bonus plan which called for naming the cash value of the bonus at the time it is declared and offering the option of an increased insurance or cash, attention was early given to the matter of derivation of the surplus and its apportionment accordingly. This developed what came to be known as the "contribution plan" under which the surplus is rebated back to the insured precisely as it is considered that his policy has contributed it. Thus if the mortality has not been so high as was assumed, there is put into his dividend the proportionate saving on his own tabular cost of insurance. In like manner, if the expenses and contingencies have not absorbed all the aggregate loading on the premiums, there is given him in his dividend the proportionate part of his loading that has not been required for expenses and contingencies. If the average interest returns upon the mean assets have exceeded the rate assumed, he receives in his dividend interest at the additional rate upon the funds belonging to his policy. If his own policy funds or part of them have been subject to the risk of forfeiture upon discontinuance or surrender, this interest return may be swelled by adding such gains to the excess interest before computing the rate.

For many years this plan seemed to give en-

tire satisfaction to the managers of companies. Its principles, as stated, were regarded incontrovertible, as indeed the fundamental principle of the contribution plan truly is. But its method of application has more recently become subjected to very critical analysis and has been found not to square with the facts. Thus, for instance, if the loading is taken as the same amount each year, including the first, it is manifest that the initial expense is not covered the first year and it appears to be unfair to allow anything either from savings on mortality or from savings on loading until the excess of expenditure is made good, even if the profits on the investment portion of the premium are treated differently, as is sometimes, though not usually, the case.

The gains or savings on the estimated cost of insurance, according to the table, which accrue during the earlier years of the insurance, are due, of course, to fresh medical selection. They are derived, therefore, from the premiums of the newly insured, and, though they are not to go to them exclusively, but rather to all alike—else there would be no advantage to the existing members from admitting them—it is reasonable before dividing any profit from this source to apply the gains, so far as is required, to cover the excess of cost of procurement over the current loading, which cost was incurred in securing the new members who contribute the profit.

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This works no unfairness and renders the division of surplus much simpler, because the present value of these gains from fresh selection may be estimated in advance and be offset once for all against the expenses or, *per contra*, the expenses be charged against the profits from mortality and loading combined, the remainder being credited as a percentage of the loading.

Originally surplus was distributed at fixed intervals, either five or seven years. That is, on a certain day a balance would be struck of the company's assets and liabilities and the resultant surplus was divided among the policyholders of record upon that date, by some means which took into account how long each policy had been in force. This is still the prevailing system in Great Britain. It has the advantage that the amount distributed may be ascertained and be compared with the surplus earned and in hand.

In this country, likewise, the early form was of dividends every five years, but they were declared as to each policy at the end of its policy year and not by a division of the profits to all at the same moment. This is now the customary, indeed the only method in use in the United States. This period was soon reduced to one year in all or nearly all of the companies. The pressure for more liberal surrender privileges proving so strong in the 60's and 70's that the

companies could not resist, except by some expedient, long-term dividend periods were introduced, with a condition for utter forfeiture upon discontinuance on the theory that there were enormous gains from these forfeitures that were to accrue to the policyholders who survived and persisted. The dividend term was usually made twenty years, but sometimes fifteen years or ten years and in a few companies five.

This long-term dividend system was presented in many modified forms, two companies actually crediting the usual annual dividends and keeping an account with each policyholder, showing all such credits and all accretions from interest and other gains, one company declaring the dividend provisionally each year and then applying it to buy a pure endowment, due at the end of the agreed upon period provided the insured survived, but most of the companies making no definite agreement and so not being bound to any particular mode of distribution. Indeed, nearly all of them employed a provision that the principles and methods used by the company in the distribution of surplus and its determination of the amount equitably due the insured shall be binding upon all parties, and do not apportion surplus until the term is on the point of expiring.

In recent years, such policies are not made entirely forfeitable upon discontinuance; on the

contrary, they have liberal surrender privileges, so far as the reserves are concerned, but the surplus is forfeited upon discontinuance.

That there was a considerable gain, if any at all, from the harsh forfeiture conditions, is much doubted, in view of the fact that all the estimates have failed to be realised. Reference has already been made, likewise, to the further fact that in several cases companies, operating under conditions otherwise similar, but giving liberal dividends annually and granting liberal values upon surrender, have made larger returns at the end of ten, fifteen or twenty years, besides furnishing meanwhile an increasing amount of insurance by means of annual dividends, applied as reversionary or paid-up additions to the sum insured, than have other excellent companies upon policies calling for complete forfeiture of the accumulated surplus upon surrender or discontinuance. This is explained mainly, as has been shown, by the much larger expense of procuring new business which has always accompanied the deferred dividend plans.

Of late years illustrations of results upon actual policies have largely taken the place of the estimates which were formerly used. It would be difficult to suggest a more thoroughly proper method of displaying the attractions of a policy. Yet the applicant should remember that

the figures are results of past experience and that interest rates are now lower than twenty years ago and conditions not so favourable for large surplus earnings in some other regards. He should not expect more than that the results twenty years from now may be as favourable in proportion to returns on other investments as the returns before him in proportion to the profits realised on other investments in the past.

Most companies which have not issued these deferred dividend policies long enough to have matured them, now make use of the actual results of one or more of the other companies, a practice at least less liable to abuse than the old custom of making estimates, if, as has been said, the applicant will but bear in mind that the figures are not earnest that like results will be realised in future.

The fact that in most of the deferred dividend companies the results of policies maturing in a given year have been in almost every case lower than the results of similar policies, completing their period the previous year, should serve to warn the applicants against accepting the figures as more than indications that future results, compared with future investment returns, will be as satisfactory as past results compared with past investment returns.

In Great Britain, owing to the uniform and compound reversionary bonus systems, the actu-

aries of companies have for many years aimed, by the construction of the premiums and by the management following closely a course previously mapped out, to secure substantial regularity and equality of bonuses from year to year. This followed a period of great variations and disappointments, however. It may be that something of the same sort may be at hand in American life insurance; and, indeed, there are companies whose dividends are, in their main elements, pretty constant, though under our system of dividing surplus according to the contribution principle, the fact is not so obvious. If there could be added to our requirements, made by insurance departments, returns as to the rates of dividends upon policies of the same kind, age and duration, with a sufficient number of examples to fairly illustrate the average, as is required in Great Britain, it would tend to strengthen the inclination to secure uniform results from year to year if possible, would prevent companies or their agents misleading applicants by ratios and the like which do not mean what they seem to say, and would direct the competition of companies toward yielding the best possible results to policyholders, in all cases. It would be a very valuable addition to the returns at present required to be made.

The deferred dividend system introduced a great variety of methods of applying dividends.

Thus, in addition to the options of taking them in cash or in paid-up additions to the sum insured, the privileges of applying them to purchase an annuity for life or for a term of years depending upon survival are the commonest forms. At the end of the dividend period there are usually added to these options the privilege of surrender of the policy for its full reserve value, in addition to the surplus, which may be drawn in cash or be applied in like manner as the surplus. These options have unquestionably added much to the attractiveness of the deferred dividend plans.

A feature of this plan which is occasionally found is that the guaranteed reserve at the end of the period is a larger amount than the usual reserve for such a policy by the standards in use by the company. Sometimes it is said that this is guaranteeing more than the legal reserve, but this cannot be true, for when such a guaranty is given the department charges the company with a reserve large enough to cover it also. It is attractive to have the larger guaranty when dividends are deemed so unreliable; but, of course, if paid-up insurance is taken, the insured must leave with the company this larger reserve. The policy was designed both to attract by the larger guaranty and also to cover the extra mortality caused by adverse selection—those who are in good health taking cash or other settle-

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ments and those who are in poor health continuing the insurance—which is experienced as to the lives that continue their insurance.

It is but fair to say that disappointment at the shrinking of annual dividends was a potent factor in rendering deferred dividends popular. Nowadays, in companies which issue many annual dividend policies, the dividends are pretty stable; and a similar stability, it is thought, is being attained in deferred dividends. It should also be remembered that, though subject to criticism for disappointing results as compared with estimates, partly, though not wholly, due to the declining rates of interest, the American companies have on the whole paid larger dividends than the companies of other countries.

One company has tried the experiment of permitting policyholders to choose whether dividends are to be deferred or paid annually, upon the completion of the second year. So few have selected deferred that it is reported that the experiment is to be abandoned.

Life insurance can be purchased from nearly all the companies on the non-participating plan and at very attractive rates, amounting to a very large dividend off the participating rates, guaranteed from the outset. These rates are, however, for purposes of meeting competition mainly, and the sale is usually discouraged, especially when a very low rate is made, by paying a

much lower commission than upon participating policies and also by being unusually rigid in medical selection. Notwithstanding which latter, non-participating policies practically always exhibit a less favourable mortality than participating, showing that applicants who are in search of the most protection for their money, often know more about their prospects of life than the physicians can discover.

A very few companies have tried selling non-participating life insurance exclusively, but all of them have had poor success except when they also conduct some other branch of business, such as industrial life insurance, *i. e.*, insuring all the members of the family for small weekly premiums collected at their homes, or as a general casualty insurance business.

CHAPTER X

POLICY CONDITIONS

ORIGINALLY the policies of American companies contained many conditions.

In the first place, the validity of the contract, no matter how long it had been kept in force, depended entirely upon the exact truth of all the statements in the application, including the applicant's statements to the medical examiner. These were made warranties, a consideration for the policy and by reference a part of the contract itself. The effect of this is that the contract stands or falls with the truth or falsity of all the statements.

To see what significance this really has one must know what would be the status, were the statements received as representations merely. In that case, in order to avoid liability under the policy, the company would need to prove:

First—That the statement was material, *i. e.*, that, had the truth been told, the risk would not have been assumed, or, more rarely, the death could not have occurred.

Second—That the statement was false.

Third—That the statement was known to the applicant to be false or that he had every opportunity to know whether it was true or false, in which event a duty devolves upon him to ascertain the fact before making the statement.

When a statement is a warranty the company need only prove that it is untrue. It matters not that it was not material or that it had nothing to do with causing the death; it matters not that he supposed it to be true, with good reason, and had no opportunity to learn that it was not true.

In some States the courts have relaxed the legal maxims as to warranty; in some others the Legislatures have done it for them. But in most States they are still in force without material modification.

Nearly all companies still accept the statements made in the application as warranties, and accordingly, as is required by the laws of several States, attach a copy of the insured's statements to the policy; but, practically without exception, they cancel this defence after one, two or three years, by providing that the policy shall then be incontestable. Sometimes, though rarely, the exception is made "except in the case of actual fraud," which, so far as it applies to the insured's statements, makes them after that period representations merely.

At first policies were filled with restrictions

upon residence and travel, occupation and mode of death. These are nowadays reduced to restrictions for a short time only—from one to three years, in different companies—against residence or travel in the Tropic or Frigid Zones, against a few very dangerous occupations and against suicide and death by duelling or in consequence of a violation of law. Some companies make their policies free from restrictions from the outset.

The policies of nearly all companies are now by their terms incontestable after from one to three years if premiums have been duly paid. The occasional exception, "except in case of actual fraud," has already been noticed. This exception is proper certainly and its presence indicates good faith. In point of fact, in cases of obvious fraud claims have been contested, notwithstanding the incontestable provision, and some courts have upheld the right to contest on the broad ground that it is against public policy to uphold fraud. Contests are extremely rare, however, and life insurance companies have in the last quarter century changed from frequent litigants into most infrequent litigants.

There is little to be desired in the modern life insurance policy in the matter of absence of annoying restrictions or onerous conditions. The only improvement, if it would be an improvement, that could be suggested, is the total

abolishment of the treatment of statements of the applicant as warranties; and lawyers say, as to this, that under the rules of evidence enforced in some States, they cannot get these statements admitted even as representations, if not made a part of the contract, unless made before a notary and duly acknowledged.

The British company earliest established to do a level premium life insurance business very soon began to purchase the policies of members who wished to surrender, allowing liberal values for them. When it had declared bonuses in addition to the sum insured, it soon set up the rule to allow the surrender of these bonus additions at any time for their full reserve values, and now for many years it has allowed the withdrawal of the full reserve value of the insurance and all vested bonuses upon surrender of the policy, at the end of any year, including the first.

The policies of the British companies, however, have not contained guarantees of surrender values for specified amounts, except in rare instances. Some companies have dealt very liberally with retiring policyholders and others quite the contrary, neither of these classes being compelled to do so either by contract or by statute. The purchaser of life insurance there protects himself by buying of a company with a reputation for generous treatment upon surrender.

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In the early days of life insurance in the United States no values whatever were allowed upon surrender. The public was familiar with the idea that when fire insurance expires and is not renewed by the payment of the premium there is no value there. The nature of the level premium life contract was not at first apprehended nor that it of necessity called for investment. This subject was considered by the Supreme Court of the United States, in 1876, the court deciding as follows:

“We agree with the court below, that the contract is not an assurance for a single year, with a privilege of renewal from year to year by paying the annual premium, but that it is an entire contract of assurance for life, subject to discontinuance and forfeiture for non-payment of any of the stipulated premiums. Such is the form of the contract, and such is its character. It has been contended that the payment of each premium is the consideration for insurance during the next following year, as in fire policies. But the position is untenable. It often happens that the assured pays the entire premium in advance, or in five, ten or twenty annual instalments. Such instalments are clearly not intended as the consideration for the respective years in which they are paid; for, after they are all paid, the policy stands good for the balance of the life insured, without any further payment. Each in-

stalment is, in fact, part consideration of the entire insurance for life. It is the same thing where the annual premiums are spread over the whole life. The value of assurance for one year of a man's life when he is young, strong and healthy is manifestly not the same as when he is old and decrepit. There is no proper relation between the annual premium and the risk of assurance for the year in which it is paid. This idea of assurance from year to year is the suggestion of ingenious counsel. The annual premiums are an annuity, the present value of which is calculated to correspond with the present value of the amount assured, a reasonable percentage being added to the premiums to cover expenses and contingencies. The whole premiums are balanced against the whole insurance."

The contrary view is given in a minority opinion filed at the same time:

"I cannot construe the policies as the majority have construed them. A policy of life insurance is a peculiar contract. Its obligations are unilateral. It contains no undertaking of the assured to pay premiums; it merely gives him an option to pay or not, and thus to continue the obligation of the insurers, or terminate it at his pleasure. It follows that the consideration for the assumption of the insurers can in no sense be considered an annuity consisting of the an-

nual premiums. In my opinion, the true meaning of the contract is, that the applicant for insurance, by paying the first premium, obtains an insurance for one year, together with a right to have the insurance continued from year to year during his life, upon payment of the same annual premium, if paid in advance."

These decisions came later, however, than the earliest of the surrender value agitation, which began before 1860, as a result of forfeiture even of vested paid-up additions to the sum insured.

The idea that this treatment was unfair first got abroad through the manifest injustice of forfeiting these paid-up additions. From this the whole subject came up for discussion.

Elizur Wright was at about this time appointed a commissioner of insurance for Massachusetts. He was already an old man; but, because he was skilled in mathematics and was by nature and training a reformer, he was well fitted to carry forward a movement for juster conditions.

His agitation of the matter in his annual report resulted in action by the Legislature of Massachusetts, requiring companies of that State to continue the insurance upon surrender, for such time as 80 per cent. of the reserve would pay for at the net single premium for temporary insurance by the actuaries' table and 4 per cent. interest.

Later this was made automatic, unless the insured accepted, instead, paid-up insurance or a cash value. Yet later, under Mr. Wright's advice, it was made compulsory to allow as a cash surrender value the full reserve, less a surrender charge fixed by a method devised by himself. Compulsory cash surrender values are still required by the laws of Massachusetts to be given by companies of that State, although the system of surrender charges has been modified.

Several other States, notably New York, followed with laws requiring the allowance of surrender values in extended or paid-up insurance, either upon application within six months after discontinuance or automatically, the laws in some cases applying to companies of the domicile only and in others to all companies doing business within the State.

Even before Elizur Wright secured the enactment of the first surrender value law two companies of other States introduced the feature of surrender values in paid-up insurance into their policies voluntarily. It will be observed, therefore, that in consequence of their own want of liberality theretofore, and of the pressure of law and of competition, American life insurance companies have necessarily made surrender values a matter of contract. An opposite course was, however, for a long time pursued as to surrender values in cash and as to cash loans, but at

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last competition compelled these, too, to be guaranteed in the contracts.

Several companies were willing to grant cash loans upon their policies long before they were willing to grant any form of surrender value. Loans to pay premiums in part were very early a feature of the business in America; the "loan note" plan, under which the insured paid part of his premium in cash, the remainder being charged against his policy and expected to be paid off by dividends, was one of the first plans to become popular. Its eventual disappearance was not due to anything unfair or unsafe in the plan, but to the two circumstances that the companies charged too high a rate of interest upon these loans and that the estimated annual dividends were not realised. But the same companies that would lend one policyholder 30 per cent., 40 per cent. or even 50 per cent. of his annual premium on this plan would neither lend him 10 per cent. nor indeed anything if he paid in the full premium in cash, nor allow him anything whatever upon surrender. Such anomalies as this have now long ago disappeared.

On the other hand, at least one of the Massachusetts companies, though compelled to allow cash values upon surrender according to law, refused to grant cash loans, even so late as 1893, in which year it lost more business than most other companies, because it thus encouraged

surrender, instead of permitting the insured to have a cash loan and to continue his insurance.

In 1892, as a result of the change of management of one of the largest companies, great impetus was given to the movement for voluntary granting of liberal surrender and loan features by the introduction of such conditions into its policies. The failure of the deferred dividend plans, with forfeiture of all premiums upon discontinuance before the completion of the period, to yield the large returns expected, undoubtedly disposed the public to demand these privileges and to prefer in purchasing life insurance companies which offered them. In consequence now nearly all the companies are liberal enough in these regards, though the applicants will do well to compare policies carefully before purchasing.

Under policies on the deferred plans the dividends are still forfeited to the surviving and persisting members upon death or discontinuance. But, on the other hand, the guaranteed surrender values frequently represent a larger percentage of the reserve than is allowed when dividends are annual. The forfeiture of the surplus, in such cases, is a substitute for a surrender charge. As such it may not be very excessive unless surrender is made in the later years of the term.

Various surrender privileges have been called "non-forfeiture" by different companies. Thus,

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the allowance of surrender values in paid-up insurance for a fractional amount or, perhaps, in extended insurance for the whole amount, if applied for within six months after discontinuance, has been called non-forfeiture. Yet more commonly has it been applied to the automatic extension of the insurance for the whole amount for a limited term. In a sense, perhaps, each of these is non-forfeiture, for the whole value of the policy is not, as once was the case, definitely and finally forfeited upon discontinuance. But the original policy contract is forfeited and a new one set up in its stead.

Non-forfeiture was the name first applied to a system which reached this country rather late and has not yet been generally accepted and put into practice, though some companies provide for it in their policies. Its late appearance here may be explained by the unwillingness of our companies to grant cash loans. In Australia, where the plan originated, it has been in use for half a century. It consists in applying all accrued surplus to pay the premium, whenever due and unpaid, and charging the remainder against the policy as a loan. This is continued until the entire fund is exhausted in maintaining the policy in force for the original amount, on the original plan, with full participation and with the right at any time before the policy lapses finally, to resume premium payment,

without medical re-examination, either paying off the accrued indebtedness or permitting it to stand and paying interest upon it.

A grace of one month in the payment of premiums has been given by some companies for many years and is now found in the policies of nearly every company.

CHAPTER XI

BENEFICIARIES—INSURABLE INTEREST

LIFE insurance policies were originally drawn up as contracts between the company and the beneficiary. Both in Great Britain and in this country the special statutes giving married women during coverture the right to have the proceeds of policies upon the lives of their husbands paid to their separate estates, ran that they might effect insurance upon the lives of their husbands. The life insured was the subject of the insurance, but the insured was not really a party to the contract.

This view of the matter made it doubtful whether a warranty by the insured was binding, so as to avoid the contract in event it proved false. This difficulty was overcome by having the beneficiary sign and warrant the statements, as well as the insured; and this in turn was relaxed into accepting the signature by the husband or father, when applying for life insurance, of the name of his wife or child, as well as his own, the theory being that if the warranty was not good, the contract itself was also not

good, being based upon precisely the same signatures.

In Great Britain at an early date the evils of speculation in insurance upon the lives of others caused the enactment of "The Gambling Act," which forbade insurances being effected upon the lives of others, unless the beneficiary possessed an interest in the life insured. This law, however, did not prevent one insuring his own life in favour of his estate and assigning it for value to whomsoever he desired.

In the United States there are few laws concerning insurable interest, but our judges have generally derived rules to govern it from maxims of the common law and from consideration of the fact that insurance is indemnity. It is worthy of observation at this point that this view was taken for some years in Great Britain, but that the highest court there has now decided that life insurance is not a contract of indemnity.

In Great Britain a life insurance policy transferred for value, however much less than it is worth, is good in the hands of its owner. The courts of New York and some other States have decided the same way; but the Federal courts, followed by the courts of most of the States, have carried the theories of indemnity and insurable interest so far that they will not admit that a transfer for value is good beyond the amount of that value and interest thereon, on

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the theory that to allow more is to permit insurance beyond the insurable interest and gambling upon lives. Accordingly, these courts hold that the holders of policies, transferred for value, have only a right to a part of the proceeds sufficient to cover the value paid and that the original beneficiaries, as, for instance, the insured's estate, have the right to the remainder.

This view finds a justification in the fact that where the contrary view prevails, policies are frequently made the subject of sale to speculators and are also often taken with the intention to make an assignment for nominal value in order to defeat the Gambling Act or insurable interest rules of law.

The fact that the legal status of the life insurance policy as a contract between the company and the beneficiary did not represent the actual relations of the parties soon developed in statutory provisions that the amount of insurance in favour of a wife, but paid for by the husband, which should be exempt from seizure for the benefit of his creditors, should be limited. Life insurance which was at the outset taken mainly in business transactions and to secure debts, has come more and more to be taken and paid for by the person whose life is insured, for the protection of designated beneficiaries or of his estate.

In order to give the insured a certain measure of control over the policy, though payable to a

designated beneficiary, policies have frequently provided that dividends and the endowment or other cash value should be payable to the insured, and even that he should, without the consent of the beneficiary, have the right to borrow against the policy or to surrender it at any time. These adverse interests, of course, render the policy, in part or wholly, free from the exemption from seizure for the insured's debts during his lifetime, which applies when it is the separate property of the beneficiary without qualification.

In recent years, policies have most frequently been issued, payable to a designated beneficiary, but with a reservation to the insured of power to change the beneficiary. This is equivalent to what is well known in law as "a general power of appointment" which has been uniformly held to leave the property in the person who possesses the power, because he can take the title at will by appointing himself. It seems clear, therefore, that during the insured's lifetime at least the policy is liable for his debts. Whether it would be in case he dies, title remaining in a specified beneficiary and the right to name himself not having been exercised by the insured during his lifetime, is not so certain; but there is at least a strong probability that it would. It would be well if the status were definitely determined by statute, as it is in some of the laws

relating to fraternal beneficiary associations which definitely protect the life insurance against seizure for the debts of the insured, while at the same time giving him the power to change the beneficiary.

There is at bottom good reason why the courts ought to relax their rigid decisions as to what constitutes insurable interest. Their purpose is to prevent one being advantaged by an insurance on the life of another when he has not an equal interest in the survival of that life. But, when a man purchases insurance on his own life for which he and not the beneficiary is to pay, and names a beneficiary, not for value, he thereby expresses his opinion that this person is regarded by him to have such claims upon him as justify the protection. Unless not in possession of his faculties, he is in point of fact the best judge as to who would benefit by his survival and suffer by his decease, and it is to be hoped that this may one day be recognised.

It has been recognised from the beginning in Australia, where laws concerning insurable interest are wholly wanting and a man may name any beneficiary he chooses. The results have been uniformly good. The manager of the largest company there says that there have been next to no abuses and that this freedom is generally satisfactory.

The following from Prof. Landell's "Sum-

mary of the Law of Contracts," the highest authority upon the subject, indicates that there may be special peril when the beneficiary named by the insured, under his reserved "general power of appointment," is not a relative:

"It was decided in *Dutton vs. Poole* (1677) that a daughter might maintain an action on a promise made to her father for her benefit, though it had previously been decided, as it has been since (and uniformly in England), that a person for whose benefit a promise was made, if not related to the promisee, could not sue upon the promise. This latter proposition is so plain upon its face that it is difficult to make it plainer by argument. A binding promise vests in the promisee, and in him alone, a right to compel performance of the promise, and it is by virtue of his right that an action is maintained upon the promise. In the case of a promise made to one person for the benefit of another, there is no doubt that the promisee can maintain an action, not only in his own name, but for his own benefit. If, therefore, the person for whose benefit the promise was made could also sue on it, the consequence would be that the promisor would be liable to two actions. In truth, a binding promise to A to pay \$100 to B confers no right upon B in law or equity. It confers an authority upon the promisor to pay the money to B, but that authority may be revoked by A at any moment."

CHAPTER XII

CONVERTIBILITY

ONE feature which has been slowly developing in the policies issued by American life insurance companies is convertibility. The development is as yet by no means complete.

It commenced in the matter of surrender values, and nowadays, as has been shown, a policy is usually convertible upon surrender into

1. Cash.
2. Paid-up Insurance.
3. Extended Insurance.

And at the end of specified periods, also into

4. A Life Annuity.
5. A Temporary Life Annuity.

The benefit or principal sum insured may, according to the terms of the policies of many companies, be converted into

1. Instalments payable for a definite term.
2. Instalments payable for the life of the beneficiary.
3. Instalments payable for a definite term and so much longer as the beneficiary may survive.

When the policy is written, payable in instalments, it may usually be converted into a policy for the commuted value of the instalments, payable in one sum.

The provisions for instalment payment should be scanned carefully if the intention is to prevent the beneficiary reconverting the benefit into a lump sum by surrendering the instalments for their commuted value. The company is usually under no obligations to do this, however; and if it acts in good faith, will not do it and thus defeat the purpose of the deceased policyholder. But unless the fund is impressed with a trust, which is not true in most cases, the company and the beneficiary are free to deal as they will with one another.

The instalments are the equivalent of the lump sum benefit which the premium would pay for, on the basis of 3 per cent. or $3\frac{1}{2}$ per cent. interest, as the case may be. Until about 1900 several companies yet used 4 per cent., but that is now uncommon.

In very few companies is there any participation in the excess earnings of the fund which is being paid out in instalments, over the guaranteed rate. In some companies, however, there are considerable gains to beneficiaries from this source.

Like privileges of conversion into instalments for a fixed term, for life or for a fixed term and

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as much longer as the insured survives, are often granted to the holder of an endowment policy, upon its maturity; or, if it is payable in instalments, conversion into a lump sum payment of the commuted value. And in some companies, conversion into instalments for the joint lives of the insured or beneficiary or for the life of the last survivor of them or for a fixed term and so much longer as the last survivor survives.

In some policies with deferred dividends, and in some policies which merely permit dividends to accumulate to the credit of the policyholder, but withdrawable at any time, it is provided that when the whole accumulation, reserve and surplus, suffices—or when, as other policies put it, the surplus will prepay all future premiums—the policy shall become paid-up if the policyholder so elects. This may convert a whole life policy with premiums for the whole period of life, into a limited-payment policy, or may accelerate the completion of the premium-paying period, in a limited-payment or endowment insurance policy.

And when the accumulation, reserve and surplus, equals the sum insured, according to the terms of the policies of some companies, the policy matures as an endowment or may do so at the option of the insured.

In both these convertible features the company may or may not have provided for such

apportionment of the surplus at frequent intervals as will enable the insured to know when the time is approaching for the exercise of his privilege of conversion; or no information may be given until notice of the arrival of that time is sent to him by the company.

Another form of convertibility which is now allowed by some companies is from life into limited-payment or endowment insurance or vice-versa. It has not yet become common. The convenience and value of it will readily be seen from the following specimens of such privileges:

Life policy, issued age 35. Premium, \$27.10. Table of Subsequent Annual Premiums (after a stated number of premiums paid). To pay-up the policy in One, Ten, Fifteen or Twenty Annual Premiums thereafter:

SUBSEQUENT ANNUAL PREMIUMS.

Years' Premiums Paid.	One.	Ten.	Fifteen.	Twenty.
5	\$472.79	\$57.40	\$42.53	\$35.46
10	435.96	53.36	39.83	33.52
15	393.89	48.96	37.00	31.62
20	347.70	44.38	34.21	29.91

To see the advantages given, compare the foregoing rates after fifteen years with the rates of the same company at the age 50, which are:

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ANNUAL PREMIUMS.

	One.	Ten.	Fifteen.	Twenty.
Age 50	\$704.94	\$87.62	\$66.22	\$56.59

Life policy, paid-up in twenty years. Issued age 35. Premium, \$37.29. Table of Subsequent Continuous Annual Premiums, if policy is converted into a whole life policy at end of any policy year:

End of Year.	Subsequent Premium.	End of Year.	Subsequent Premium.
1	\$26.52	11	\$17.72
2	25.90	12	16.40
3	25.24	13	14.96
4	24.53	14	13.38
5	23.76	15	11.66
6	22.94	16	9.76
7	22.05	17	7.69
8	21.10	18	5.38
9	20.08	19	2.83
10	18.94	20	Paid-up

The benefits plainly appear when the rate of \$18.94, after the tenth year, is compared with the full premium of \$39.10 for age 45.

Endowment in twenty years. Issued at age 35. Premium, \$47.55. Table of Subsequent Continuous Annual Premiums (or life annuities if

full-paid) if policy is converted into a whole life policy at end of any policy year :

End of Year.	Subsequent Premium.	Life Annuity.	End of Year.	Subsequent Life Premium. Annuity.
1	\$25.95		11	\$8.30
2	24.70		12	5.64
3	23.36		13	2.74
4	21.94		14	Paid-up
5	20.41		15	" \$.43
6	18.75		16	" 3.81
7	16.98		17	" 7.67
8	15.06		18	" 11.90
9	12.98		19	" 21.58
10	10.73		20	" 30.00

Many men buy insurance on the whole life plan temporarily, intending to change to limited premiums or to an endowment policy later. Often they make the change by lapsing or surrendering the life policy for what can be got for it or by negotiating an allowance upon the new premium, in exchange for it. But that they receive full value is very unlikely, though on every account they should because they still continue the insurance, merely paying more or less thereafter as the changed case calls for. When the foregoing conversion privileges are available they do.

CHAPTER XIII

INDIVIDUAL ACCOUNTS.

THE keeping of individual accounts with members and furnishing them with statements of the same, has been urged on two grounds, viz.: To supply them with information concerning the amount of surplus accumulated on deferred dividend plans and to inform them as to the derivation of the surplus.

It was plainly intended by the charter members of the "Old Equitable" of London that an intelligent account should be kept, showing the mode of division; for the Deed of Settlement says:

That when and as often as it shall appear to a General Court of the said Society, that the Stock of the said Society arising from premiums, is more than sufficient to pay the claims made, or liable to be made, upon the said Society; then, and so often the said Society shall, in a General Court, declare a *Dividend* of the surplus or of such part thereof as shall, by the said General Court, be thought and judged con-

venient, amongst the then *Members* of the said Society who shall be *Assured* with the said Society upon (and for the whole continuance of) their respective *Lives*, in manner and form following (that is to say) :

“The members of the said Society who shall be assured with the said Society upon (and for the whole continuance of) their respective lives (those who shall have so become Members in the then current year, or the then last year preceding, who are hereby declared to be incapable of any dividend, only excepted) shall be divided into classes according to the number of the years of their standing in the said Society; and those of the said Members of the Society who shall have completed one entire year’s standing in the said Society on or before the last day of December next preceding the declaration of the said dividend, shall constitute the first of the said classes; which being done, the sum to be divided shall be allotted to the several classes in such order that the sum to be divided among the second class shall be twice so much as the sum to be divided amongst the first class, and the sum to be divided amongst the third class shall be thrice so much as the sum to be divided amongst the first class; and so on in an arithmetical progression, the number of the terms of which series shall be the number of the said classes, and the common difference of which series shall

be unity, after which the sums so allotted to each several class shall be subdivided amongst the individuals of each class in proportion to the sums by them respectfully assured."

The delightfully definite manner in which the declaration of bonuses, really made in defiance of the Deed of Settlement, was explained by the actuary of the company a half century later is in marked contrast:

"A partition of the profits which the Society has from time to time acquired, so far as hath been deemed prudent and safe, has been made or appointed to be made by authority of General Courts of the Society, by extending the allowance to Claimants after a certain rate to be computed upon the sums assured for every year's premium paid upon their respective Policies prior to a certain day in such several Orders specified."

These are the earliest instances. They have been followed by many.

During the later years of his life, Elizur Wright, the great actuary and ex-Commissioner of Insurance for Massachusetts, earnestly championed a system of individual accounting which he called the "Savings Bank Plan," and which he explained as follows:

"For example: Suppose his policy is for \$1,000, payable at death or fifty, entered at twenty-five and has closed its ninth year, within

this fiscal year of the company. Referring to the table, we find his reserve at the end of his eighth year \$207.49, to which was added at the beginning of the ninth \$22.15, making the self-insurance fund at the beginning of the ninth year \$229.64. Four per cent. of the interest was required to make this \$238.83 at the end of the year, and 1 per cent. to pay for managing the fund, so there is \$2.30 of surplus from self-insurance. The normal cost of insuring him that year was \$6.53, of which one-fifth, or \$1.31, was saved, which is so much more of surplus from vitality. The insurance value at the beginning of the year was \$54.30. Three per cent. of this would be \$1.63 for expenses, to which if $2\frac{1}{2}$ per cent. of the premium be added for collection, we have \$2.45 to be deducted from the margin, \$4.23, which leaves surplus from that source of \$1.78. Thus the surplus which belongs to him is:

From self-insurance,	\$2.30	
From insurance,	1.31	
From margin,	1.78	\$5.39

“In the same way, if the policy had ended its first year within the fiscal year, its surplus would have been:

From self-insurance,	\$0.21	
From insurance,	1.46	
From margin,	.86	\$2.53

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“And for its twentieth year it would have been:

From self-insurance,	\$6.70	
From insurance,	.68	
From margin,	3.09	\$10.47”

THE TABLE REFERRED TO.

Age.	Margin.	Normal Costs Insurance.	Company's Risks.	Deposits.	Reserve.	Age of Policy.
25	\$4.24	\$7.30	\$977.75	\$21.38		0
26	4.23	7.24	954.55	21.44	\$22.25	1
27	4.23	7.16	930.36	21.52	45.45	2
28	4.23	7.08	905.10	21.60	69.64	3
29	4.23	6.99	878.75	21.69	94.90	4
30	4.23	6.90	851.24	21.78	121.25	5
31	4.23	6.79	822.51	21.89	148.76	6
32	4.23	6.67	792.51	22.01	177.49	7
33	4.23	6.53	761.17	22.15	207.49	8
34	4.23	6.37	728.41	22.31	238.83	9
35	4.23	6.20	694.15	22.48	271.59	10
36	4.23	6.00	658.31	22.68	305.85	11
37	4.23	5.78	620.86	22.90	341.69	12
38	4.23	5.54	581.62	23.14	379.14	13
39	4.23	5.27	540.52	23.41	418.38	14
40	4.23	4.96	497.47	23.72	459.48	15
41	4.23	4.62	452.33	24.06	502.53	16
42	4.23	4.24	405.03	24.44	547.67	17
43	4.23	3.84	355.37	24.84	594.97	18
44	4.23	3.41	303.30	25.27	644.61	19
45	4.23	2.92	248.64	25.76	696.70	20
46	4.23	2.36	191.21	26.32	751.36	21
47	4.23	1.70	130.79	26.98	808.79	22
48	4.23	.92	67.15	27.76	869.21	23
49	4.23	.00	.00	28.68	932.85	24
50					1000.00	25

This plan was not tried by any considerable company; but it may fairly be doubted whether it would have been commercially successful, had it been given a trial. At that period, more per-

haps than now, men seemed to love to be mystified and misled as well. They were predisposed to believe that there was "big earning power" in life insurance and this rending of the veil of obscurity from the transaction rather repelled than attracted.

The companies were not ready for it in any event. It showed too clearly what were the insured's equities, in those days when cash surrender values were deemed positively dangerous and even ruinous.

In later years the following simpler process has been suggested. Credit the premium; charge out the policy's share of actual expenses—credit interest; charge out the policy's share of actual losses. The remainder is the fund belonging to the policy at the end of the year. With this fund as a basis, continue the process described, year by year. At the end of any year deduct the required reserve and the remainder is surplus. A few of the smaller companies only have made use of it.

The objection, which is openly urged, is the labour of keeping the accounts. Each account requires only four entries per annum, when premiums are payable annually; only seven, even when premiums are payable quarterly. Banks make many more entries *daily* for a customer with a minimum balance, perhaps, and think nothing about it.

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The real objections are that it strips off the mystery and explodes the notion that there are marvellous sources of profits and that it would expose an extravagant expense rate when present, discrimination against some policies in expense charges, and, if expenses were charged as per their incidence, an extravagant cost of new business, when present.

But the chief reason why these things are not done is because patrons of life insurance do not effectively demand it by preferring companies which keep their accounts in this open manner.

Up to the present time, then, the keeping of individual accounts for the purpose of exhibiting the transactions plainly and fully, has made little progress.

Two of the companies, at least, which for a long time especially urged the sale of deferred dividend policies, employed a system of individual accounts for the purpose of keeping track of the accumulations of surplus, and also furnished the policyholder a statement upon request. One other is reported to have kept its accounts in this manner, but would not furnish a statement to the individual policyholder, excepting, of course, merely to name the amount of the surplus at the end of the period.

While the two companies first mentioned have been successful, there is no indication that it was due to the feature of individual accounts.

The system employed by them was this: They credited each year to a deferred dividend policy the same dividend as to an annual dividend policy of the same amount, kind, date and age at entry, but only provisionally, *i. e.*, subject to survival and persistence. The surplus account, with these dividends as a basis, was then credited each year with interest and gains because of surplus forfeited by other policies by death or discontinuance.

One company, with policies deferring the receipt of dividends until the end of the period, each year credits the proceeds of the annual surplus, accumulated as a pure endowment to the end of the term, and advises the policyholder how much is credited. Of course, discontinuance, as well as death, forfeits these credits, however.

Undoubtedly, one reason why some companies did not favour giving statements of surplus *ad interim* was because they feared that their estimates might not be realised, and so preferred to delay the disappointment until the end.

Not very courageous, perhaps, nor very frank and ingenuous. But it must be acknowledged that, even when the expected results were in a fair way to be realised the statements were often misleading to the policyholder, who, perhaps, expected to see half the estimate made good, for instance, in half the time. The com-

panies which furnished the statements often found them undeservedly embarrassing.

If supplied by all companies, however, the facilities for comparing notes would doubtless encourage the most desirable form of competition among companies, viz., competition as to results to policyholders. This would also effectively suppress a practice known to have appeared in certain quarters, as in a small New York company recently brought unfavourably before the public, of paying to policies maturing in a given year surplus which has not been accumulated from previous years, but is part of the current earnings. It is plain that, with a growing business, this nefarious thing could go on in a company for years without detection or exposure, and indeed has done so more than once.

Not a few companies go so far as to hold the accumulated surplus as a general surplus fund, not even apportioned provisionally among the various classes of policies.

CHAPTER XIV

STOCK AND MUTUAL LIFE INSURANCE COMPANIES

LIFE insurance companies are usually divided into three classes:

Stock companies.

Mutual companies.

Mixed companies.

To these may be added yet another class:

Mutual companies with guaranty capital.

By "stock companies" is not meant merely companies which have a stock capital, for that is true of two of the other classes; but companies having a stock capital which do not issue policies under which participation is granted to the policyholders.

When the first life insurance company to do a level premium business was organised in 1762, there were two of these companies doing business already. They offered short-term policies only, from one year to seven years, at the uniform annual premium of five per cent. per annum. And their objections to the granting of a charter to the new company, which was mutual, prevailed on the following grounds:

“We having been attended with counsel on behalf of the said petitioners, and also by counsel on behalf of the Governors and Cos. of the London and Royal Exchange Assus. Cos., and also on behalf of the corp. of the Amicable So. for a perpetual assu. on lives, in Serjeant’s Inn; the said companies and corporations having entered caveats with the Attorney-General against granting the prayer of the said petition, and the said petitioners and their opponents having produced several affidavits annexed to this in our Rep. We have proceeded to examine the same, and after the best consideration we have been able to give the subject, we are humbly of opinion to advise his Majesty not to comply with the prayer of this petition, for the following reasons:

“1st. Because it appears to us altogether uncertain whether this project will or can succeed in the manner in which it is proposed; and if the success is uncertain, the fund for supporting it, which is to arise from the profits of the undertaking, will be precarious.

“This last consideration is in our opinion a fatal objection to the scheme, for though an undertaking plainly calculated for the benefit of the public may in some instances deserve encouragement, even where the success is dubious, yet in such cases the projectors alone ought generally to abide the peril of the miscarriage.

“In the present proposal, therefore, whatever else may be hazardous, the cap. or fund to answer losses ought to be certain and liable to no casualty, for which reason, when the legislature enabled his Majesty to erect the two Corp. of the Royal Exchange and the London Assu., they thought it necessary to oblige these bodies, in the first place, to raise a large cap. before they began to insure.

“2nd. The success of this scheme must depend upon the truth of certain calculations taken upon the tables of life and death, whereby the change of mortality is attempted to be reduced to a certain standard; this is a mere speculation, never yet tried in practice, and consequently subject, like all other experiments, to various chances in the execution.

“The tables upon which the calculations are built are the Bills of Mort. of London, and the Breslau tables, and admitting them to be strictly accurate (of which there is strong reason to believe the contrary), they are compounded of diseased as well as healthy persons, of those who are embarked in dangerous as well as other employments, without pointing out the proportions they bear to each other, and yet as the petitioners propose to insure only such even of the healthy as are not employed in dangerous occupations, the register of life and death ought to be confined, if possible, for the sake of exact-

ness, to such persons only as are the objects of ins.; whereas the calculations offered embrace the chance of life in general, the healthy as well as unhealthy parts therefor, which, together with the nature of such persons' occupations, are unknown numbers.

“As the fund to answer losses must depend principally upon the prems. (for we pay but little regard to the small deposits or the personal covenant), the project should be sure of success; otherwise the adventurers will be undone, or greatly injured, and the calamity will fall the heavier, because it will fall principally upon the poorest sort, the rich having no temptation to insure. Under these circumstances, if there was no other objection to the scheme proposed, the uncertainty of success would make us fearful of advising the charter.

“We are the more apt to doubt of the event, because it has been represented to us by the affidavit of Mr. Savage, that all the profit which has been received by the Royal Exchange Assu. from the time of its commencement to the present time, amounts only to a sum of £2,651 4s. 6d., the difference between £10,915 2s. 2d. paid in prems., and the sum of £8,263 17s. 8d. disbursed in losses, which small profit must have been near exhausted in the charges of management. If then this corp. who are charged with taking unreasonable prems., have reaped no

greater profit, we can hardly expect a more considerable capital to arise from lower prems.; and the hazard of loss will be increased in proportion as the dealing will be more extensive.”

A New York stock company was also doing business before any mutual company was established here; and its argument in 1833 against granting a charter to a new company is marvellously like the reasoning of nearly seventy-five years earlier. In Boston and Philadelphia a similar condition obtained. All of these American stock companies retired from the lists to engage in other businesses when mutual companies were established. The two British companies developed chiefly as fire insurance companies, neglecting the life branch to a large degree.

In later years the large dividends to policyholders in the mutual companies excited the cupidity of exploiters, and stock companies were organised to offer lower rates of premium than the mutual companies, but without participation. Several trials have been made at this, two of them at least being under favouring conditions. One undertook the accident business as well as life, and for nearly thirty years supported its life business with low premiums, by means of the profits of its accident branch, only to surrender and introduce participating plans recently. The other set forth with a capital of

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unprecedented amount and with several of the strongest financiers among its directors, only to discover that non-participating business alone offered doubtful and at best scanty rewards for the capital invested.

It has recently been said in this series that insurance is essentially mutual. This is especially true of life insurance, as the following from a famous decision of the Supreme Court of the United States clearly demonstrates:

“The insured parties are associates in a great scheme. This associated relation exists whether the company be a mutual one or not. Each is interested in the engagements of all; for out of the co-existence of many risks arises the law of average which underlies the whole business. An essential feature of this scheme is the mathematical calculations referred to, on which the provisions and the amounts assured are based. And these calculations, again, are based on the assumption of average mortality and of prompt payments and compound interest thereon.”

It is these facts, no doubt, which have operated to cause mutual life insurance, *i. e.*, with the participation of policyholders, to be more popular and satisfactory; and has caused companies, whether purely mutual or mixed, or mutual with guaranty capital, if offering participating life insurance, to score great successes, while companies offering non-participating pol-

icies only have dwindled and failed to prosper. It should be said, however, that the failure of reserve laws to regard the necessity for a provision for first year's expenses hits the stock companies with low premiums much harder than mutual companies with larger premiums, and that while policyholders will purchase deferred dividend policies, the want of prompt and regular dividend returns is a serious matter with stockholders.

Stock companies are, of course, controlled and governed by the stockholders, usually by means of proxy voting. The majority is nearly always all-powerful; sometimes a system of cumulative voting enables the minority to be represented.

The insured have, of course, an interest in these companies. Accumulations from their premiums are in the company's keeping as reserves. But they are not interested in the profits, and can have but slight reason to expect to be given a voice in the management. Yet in some cases even this has been granted, the millions of dollars of policyholders' money appealing for protection against the paramount interests of a hundred thousand or so invested in capital stock.

Elizur Wright, when commissioner of Massachusetts, once said in his annual report: "Whenever and wherever life insurance offices are needed they may easily and safely be organised

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by a sufficient number subscribing to be insured."

Mutual companies are quite as comprehensible as stock companies. They are composed of policyholders, with mutual obligations and mutual benefits. Their policies or most of them are participating. There is no capital stock; and the mutual company with all its assets is the property of the policyholders.

At the outset the premiums of the mutual life insurance companies, while ample and, as it proved, redundant, were much less than the premiums charged by the stock companies. Afterward, however, when mutual life insurance was a demonstrated success, this was reversed, and stock companies have had to charge for non-participating insurance much lower premiums than the premiums on participating plans.

The mutual life insurance companies have rendered this necessary by two methods. First, by paying liberal dividends on participating policies; and, second, by offering non-participating or limited-participating policies at very low rates of premiums. Against competition of the last mentioned sort the president of the most important company doing a non-participating business only, protested a few years ago, on the ground that for a mutual company to issue non-participating policies is clearly improper and almost certainly unlawful. In consequence some

companies desisted, offering policies with premiums nearly as low, but with limited participation. But the power has not been tested, and some companies do not seem to fear that their right to admit members on a non-participating basis will actually be contested, or if contested will not be upheld. The gain to stock companies would be little in any event, for there would be nothing to prevent a mutual company from naming as low premiums for a special form of participating insurance as now for non-participating.

The advent of mutual insurance, then, not merely deprived the few stock companies already in existence of the monopoly which enabled them to charge exorbitant rates of premium; but also even to this day has caused non-participating rates to range so low that stock companies, offering non-participating insurance only, have been at a disadvantage. At the present time much the lowest non-participating rates are offered by mutual and mixed companies; and only one large company confines its business to non-participating policies, and that not in its intermediate or its industrial department.

Mutual companies are, in theory at least, controlled and governed by their members. The following are the modes in use for obtaining an expression of the will of the members:

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All give the privilege of voting in person to all members who attend the meeting; for members who do not attend provision is made—

1. By means of proxies, good until revoked.
2. By means of proxies, good for a limited period.
3. By means of proxies, good for the meeting only.
4. By means of proxies, good for the meeting only; officers, agents and employees not to vote proxies; nor any other member to represent more than \$100,000 insurance in that manner.

5. By means of direct voting by mail.

All of these methods have secured reasonably stable tenure of offices, mainly subject only to failure to re-elect on account of misconduct; but the influence of the members upon the management is different under the different systems, and the difficulty of getting rid of officers who have mismanaged affairs is much greater under some of the systems than under others.

There have been extensive changes in the personnel of the officers, for cause, however, even under the system of proxies good until revoked, and the system of proxies good for a limited time. Yet each of these modes is subject to the serious objection that they enable one man or a few men to control absolutely, except when, by the exposure of some glaring instance of official

misbehaviour, a revolution of sentiment causes a larger number of the members to insist upon his or their retirement.

Under these methods, borrowed from the practice in stock companies, and really little suited to the requirements of mutual companies, the interest and vigilance of the members are suppressed, and they are made to feel that they have no voice in the management of their own companies. They stay away from the meetings and concern themselves not at all, well knowing that they can learn nothing even of what is being done, and that their votes, if cast in person, will be overwhelmed by the vast number of proxies which the managers can cast. So complete is this discouragement that it is rarely necessary for the proxies to be voted at all; but they are on hand—one witty president called them “the children of Israel” because they had never been numbered—ready to beat down any protest against the men in control.

In the two revolutions which have taken place, notwithstanding these systems, one was successful because of public exposure of the proxy-holder’s mismanagement, with a hostile insurance department and with even his supporters advising against holding out. The other was the result of a counter conspiracy; one clique of officers, holding the proxies, aimed at elevating a certain officer to the presidency, and other

officers secretly collected proxies and at the election outvoted them. This would manifestly have been more difficult, had he once been elected president; and, in any event, little can be said in favour of a system which admitted of a change of management only by means of what must be called a secret conspiracy, though in this case for good motives and for good cause.

It is claimed for these systems that they perpetuate a good management. This is only true in most cases, provided the chief officer is desirous of it, for usually he holds the proxies. Sometimes, however, the proxies run to a committee or to several persons, authorising any one of them to cast the votes. Under this arrangement, perhaps, a little more security that the management shall not be subjected to one man's will, may be attained, whether for better or for worse it is not so sure. The latter plan does accomplish one thing, however, viz., to continue the proxies beyond the lifetime of the chief officer, and thus powerfully to influence the directors, perhaps, in their choice of his successor through their knowledge that they will still have a master. Even this may be preferable, however, to a scramble over that position.

Under both these systems proxies are secured as quietly and unobtrusively as possible, precautions being taken against apprising the members too vividly of their latent power. The ex-

periment has been tried, though not by companies of standing, of printing the proxy appointment—even made perpetual and irrevocable—in the application form, to be signed by every person admitted to the company. This has been discarded as of doubtful legality and of not doubtful impropriety. But proxies are often taken when policies are delivered; and it is one of the implied duties of trusted general agents to collect proxies for the management.

The desire to avoid reminding the members of their rights and powers has prevented the plan of calling for proxies for each meeting, or even for short periods only, becoming popular with officers of mutual companies. It would have advantages, obviously, from the standpoint of the policyholders, because if there were good cause for dissatisfaction there would at least be an opportunity for resistance, though with the odds strongly in favour of the entrenched management, with its superior facilities for reaching the members.

The fundamental evil and danger in the proxy system, under even its most innocent phases, is that it enables the votes of the most indifferent and unthinking members—precisely the men who give proxies to an existing management without hesitation—to be cast against the votes of members who really consider the needs of the company. It is as if in our governmental affairs

we were to permit politicians, after getting office, actually to vote as proxies for the stay-at-homes and incompetents. The system takes advantage of the weakness of human nature, the want of initiative in the average man, and his disinclination to make trouble, and turns this against the intelligence and interest of the men who would guard the common weal. That this is true is abundantly shown by the great care taken not to stir up the policyholders.

The system of proxies, good for the meeting only, and with restrictions against persons connected with the company as officers, directors, agents and employees acting as proxy-voters, and against more than \$100,000 insurance being represented in proxies by one man, was introduced in one company, after a revolution under the unlimited system. It is undoubtedly an improvement, requiring the directors and officers to work together smoothly in order to avoid risk of an upheaval, and holding them much more strictly to account. A similar provision governing all the mutual companies of Massachusetts is found in the laws of that State.

Several companies permit only those members to vote who present themselves at the meeting. Theoretically this is perilous, exposing the management to the danger of being overwhelmed by a conspiracy on the part of a comparatively small number of the members. Prac-

tically, also, there has been at least one instance of an overthrow of the management in part, perhaps well deserved, but, notwithstanding, unexpected. No case can be cited of an attempt to get control of a mutual company by means of a packed meeting on the part of persons not connected with the management, and whose purposes were evil.

These are the only forms of government of mutual life insurance companies in vogue in the United States. The fraternal life insurance societies are governed by representatives, elected by the members, but no regular mutual life insurance company has made a trial of that system. Very probably the managers of such a company would prefer the evils of any of the proxy systems to the interferences, criticisms and log-rolling of the representative plan.

The largest life insurance company in the British empire, the Australian Mutual Provident Society, has for many years afforded its members a full opportunity for expressing their wishes by granting them the privilege of sending in their votes for directors by mail if not in attendance at meeting.

No important difficulties have arisen in connection with the operation of this system. It is practically free from company politics. There is no log-rolling. Unlike the proxy system, it does not result in the most indifferent members

being represented, but only in those who are interested and have opinions and preferences to express. The opportunity to vote is given to all, however; not virtually denied to most of the members, as under every one of the systems in use here.

There has been but one revolution in the great company which has demonstrated the success of the plan. Doubtless there would have been more, had they been called for; but the sense of strict accountability to the members has kept the officers to their duties. This is also apparent in the unparalleled service which this company has given. In dividend returns to policyholders, in liberal features of all kinds, in non-forfeiture, in economy and effectiveness of field work, in ratio of new insurance to population in its field, in percentage of old business saved, in favourable mortuary experience, its career is unprecedented.

This method is modern and consonant with the means of communication suitable to our age. It is a machinery by means of which, without excitement or company politics, the conservative premium payers in a mutual company may approve or disapprove the acts or the proposed acts of the officers and directors by re-electing them or failing to re-elect them.

The present laws of New York provide that proxies in mutual life insurance companies shall

be for a term, not exceeding ten years, and if not for a specified duration, shall be for eleven months only. They also provide that the by-laws may designate what person or persons may receive proxies, thus enabling the directors to control the matter. A stricter system of control and self-perpetuation by the board of directors has been mooted, such as obtains in mutual savings banks, viz., that the term of office be during good behaviour, and vacancies be filled by the board. Something like this is attempted in the settlement of the troubles of the Equitable Life Assurance Society of New York, which enables and directs trustees to cast the votes of a majority of the stock for candidates, twenty-eight of whom are selected by the policyholders and twenty-four by the board of directors.

CHAPTER XV

MUTUAL COMPANIES WITH GUARANTY CAPITAL AND MIXED COMPANIES

WITH the exception of one company, which was purely mutual from its inception, the older Massachusetts companies that are now mutual set out with a guaranty capital. The conditions concerning this capital were that it should be entitled to a preferential dividend of seven per cent: and that one-third or one-fourth of the surplus should be accumulated until it became sufficient to retire the capital stock at par, which could be done thereafter whenever the policyholders voted to do so.

All the older Massachusetts companies have retired the stock, except one company, which yet has \$25,500 outstanding.

While the stock remained in force half the directors were elected by the members and half by the stockholders, but to be either a stockholder or a member was sufficient qualification for a director. The transfer from mutual companies with guaranty capital to purely mutual

companies was in no case attended with an upheaval or change of management; and how little influence the members have exercised under the system of proxy-voting is shown by their failure to vote the retirement of the remnant of capital stock in one of the companies.

Of other companies which are now purely mutual, only one set out originally as a mutual company with a guaranty capital. Originally in that company the stockholders only elected the directors; by amendment, this was later made members and stockholders, either also being eligible. There was no limit to stock dividends and no provision for retiring the stock, notwithstanding which it has been retired.

One company was at the outset a mixed company, *i. e.*, a stock company, with complete control in the stockholders and no limit to stock dividends. But the sale of the controlling interest to persons who had made a wreck of another company caused the State department and legislature to interfere and, by special act of the legislature, the members were enabled to purchase and retire the stock.

One State at least, New Jersey, now makes provision in its general laws for incorporation of mutual companies with guaranty capital and for the retirement of the capital stock. Several States permit the organisation of such companies, but usually without compulsory pro-

visions for retirement. Between such companies and mixed companies, by which is meant stock companies which sell participating policies, it is somewhat difficult to distinguish; but careful and conservative students of life insurance incline to hold that the following distinction is the important one, viz., are the shareholders interested, directly or indirectly, by way of cash dividend or otherwise, in the profits of the company beyond a certain fixed or limited dividend? If not so interested it is a mutual company with guaranty capital; if so interested, a mixed company, *i. e.*, a stock company which issues participating policies.

In other particulars mutual companies with guaranty capital are sometimes more like stock companies than are some mixed companies or stock companies which issue participating policies.

One other mixed company also retired its stock. This stock was paid for, in fact, merely to comply with the then laws of that State in transferring the company from an assessment company to a regular life insurance company, and was at once retired, the company having more than the required amount of policyholders' surplus from the first day.

There are in New York City three companies which come within the definition of mutual with a guaranty capital.

One of these limits its dividends on stocks to twelve per cent. per annum. It has no provision for retiring the stock; the directors are elected by the stockholders voting in person or by proxy, and the policyholders voting in person. No qualification for a director is named in the charter.

Another limits the dividend on stock to seven per cent.; has no provision for retiring the stock; permits stockholders only to vote for directors, and makes the following qualification for a director, viz., "That he owns and holds in his own right at least ten shares of the capital stock of the company." There is also the following provision in the charter:

"The insurance business of the company shall be conducted on the principle of giving to policyholders an interest in the profits of the company, as hereinafter provided, unless otherwise expressly agreed between the company and the assured."

The third, which has grown to become one of the largest companies in the United States, limits the dividend on stock to seven per cent. per annum, and the following further provision, "that the earnings and receipts of said company over and above the dividends, losses and expenses, shall be accumulated."

Also the following:

"The officers of the company, within sixty

days after the expiration of the first five years from December 31, 1859, and within the first sixty days of every subsequent period of five years, shall cause a balance to be struck of the affairs of the company, which shall exhibit its assets and liabilities, both present and contingent, and also the net surplus, after deducting a sufficient amount to cover all outstanding risks, and other obligations. Each policyholder shall be credited with an equitable share of the said surplus."

There is no provision for the retirement of the stock; the qualification of a director is that he must be proprietor of at least five shares of the said capital stock, and the provision for the election of directors is as follows:

"In the election of directors every stockholder in the company shall be entitled to one vote for every share of stock held by him, and such vote may be given in person or by proxy. At any time thereafter, the board of directors, after giving notice at the two previous stated meetings, may, by a vote of three-fourths of all the directors, provide that each life policyholder, who shall be insured in not less than five thousand dollars, shall be entitled to one vote at the annual election of directors, but such vote shall be given personally, and not by proxy."

The two companies last mentioned are the

only companies in the United States in which all the surplus (beyond the fixed dividend) belongs to the policyholders, and the stockholders only vote for directors. Both have been unpleasantly before the public of late, mainly because of efforts of majority holders of the stock to get larger returns, indirectly.

There are three such companies outside of the State of New York.

One of these limits its dividends on stock to 10 per cent.; makes no provision for retirement of stock; provides for the election of directors by stockholders voting in person or by proxy, and by members voting in person only. The qualification of a director, ownership of at least ten shares of the guaranty capital of the company.

Another limits its dividend on stock to 7 per cent., preferred; makes provision for retirement, when it is voted by members, and that one-fourth of the net surplus may be applied to retire the stock. Of the original guaranty capital only \$25,500 is outstanding. The directors are elected one-half by the stockholders and one-half by the members, voting in person or by proxy, and a director may either be a stockholder or a member.

The third limits the dividend on stock to 7 per cent., makes no provision for retirement, and permits the directors to be elected from and by

the policyholders. It was originally a purely mutual company and the guaranty capital was put in later.

There are in New York six companies that fall within the definition of mixed companies, or stock companies that issue participating policies.

One of those limits the dividend on stock to 7 per cent., preferred, plus 20 per cent. of the remaining surplus; makes no provision for the retirement of stock; provides for election of directors by stockholders, voting in person or by proxy, and by policyholders voting in person only, and makes as a qualification for a director that he be a proprietor of at least ten shares of the capital stock of the company owned for at least thirty days prior to the election.

Another company limits its dividend on stock to 7 per cent. per annum, plus one-eighth of the net surplus; makes no provision for retirement of stock; provides for the election of directors by stockholders and policyholders voting in person or by proxy, and names as a qualification of the directors that one-half must be persons owning not less than ten shares of the capital stock, and one-half may be policyholders. The following is a special provision of its charter:

“The capital of the company may be increased indefinitely by the accumulation of profits, except as hereinafter provided. The accu-

culated capital shall be represented by scrip, which shall be issued from time to time to the policyholders."

Another limits its cash dividend upon its stock to 7 per cent. per annum, and its charter contains the following special provisions under amendments:

"On the first day of January in each year, or within sixty days thereafter, a valuation of the assets and liabilities of the company shall be made, and after placing to the credit of the stockholders 7 per cent. on the amount to the capital stock, which may be paid to the stockholders, one-half on the 15th day of May and the remaining one-half on the 15th day of November, and after providing for all the outstanding liabilities of the company, all the remaining profits or surplus of the company shall be placed to the credit of the policyholders who may be entitled to participate in the profits or surplus of the company in proportion to the amount of premiums paid respectively, as hereinafter provided, which credit may be represented by scrip, subject to all the provisions of this charter; but no credit or scrip shall be made for any fractional part of a dollar, nor shall any policyholder be entitled to a credit for profits who has not been insured for three full years, and whose policy for life, or endowment, is not in actual force at the time.

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“On the first day of January of each year, or within sixty days thereafter, a valuation of the assets and liabilities of the company shall be made, and, after providing for the liabilities of the ordinary department, the net surplus derived from the business of said department shall be credited to such policyholders of said department as may be entitled to participate in such surplus. Then, after providing for the liabilities of the ‘industrial department’ and interest upon the capital stock, the net surplus derived from the business of said industrial department shall be added to the capital stock as additional security to the policyholders.”

There is a provision for the retirement of one-half of the capital as follows:

“When the gross assets of the company shall amount in value to five hundred thousand dollars it shall be lawful for the directors to retire one-half of the capital stock of the company by payment to the stockholders of one-half of the par value of the stock, and by issuing to each stockholder, on such payment, a new certificate, reducing each stockholder’s stock one-half. Such new certificate shall represent as many shares as did the old one, and each share of the new stock shall be of the par value of twenty-five dollars.”

This provision has not been made use of, but instead an authorisation to increase the capital

was obtained. The full authorised capital of \$2,000,000 has now been reached, and this company has been paying voluntarily, and not as a matter of contract, large amounts in dividends to industrial policyholders, and has also recently made all whole life industrial policies terminate as endowments at age 80. It now issues non-participating policies only, in the ordinary department.

The directors are elected by the stockholders voting in person or by proxy, and the policyholders voting in person only, and the following qualifications are named for directors, viz.: That two-thirds of them must be stockholders and one-third may be policyholders.

Another company limits its dividend on stock to 7 per cent. per annum, plus the profits on non-participating policies. There has been established therefrom a guaranty fund of \$250,000. There is no provision for the retirement of stock. Directors are elected by the stockholders and only a stockholder may be made a director.

Another company limits its dividend on stock to 7 per cent. per annum, plus 20 per cent. of the net surplus; makes no provision for the retirement of stock; provides for the election of directors by stockholders and policyholders, voting in person or by proxy, and permits either a stockholder or a policyholder to be made a director.

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Another does not limit the dividends on stock, makes no provision for its retirement, provides that directors must be stockholders and be elected by stockholders only. This company was transferred in 1899, from a purely mutual company to a stock company, as the only means under the laws of New York to change from an assessment company to a regular life insurance company.

There are many companies that come within this category, which have home offices outside of New York. The following are examples of the provisions of the charters of some of the older and best established of these companies.

One limits the dividend on stock to 10 per cent., "except from the surplus or earnings from the business of accident life insurance"; provides that there shall not be taken to be applied toward this dividend, from the mutual or participating department, a greater amount than \$9,000 per annum; makes no provision for retirement of stock, but provides that directors must be stockholders and be elected by stockholders.

Another does not limit the dividends on stock, makes no provision for its retirement, provides that the directors be elected by stockholders and members, and names no qualification for a director. The following is a special provision of its charter;

“All persons making contracts with said corporation for any of its objects and purposes shall become and be members of said corporation, subject, however, to all lawful by-laws, rules and regulations which may be made or presented by said directors.”

The original limit of stock in this company was \$100,000, which has been increased by stock dividends to \$2,000,000. Although not called for by its charter or by its policies, this company has for several years been paying large amounts in dividends to industrial policyholders.

Another company does not limit the dividend on stock, makes no provision for its retirement and provides that directors must be stockholders and be elected by stockholders. Until recently it transacted only a non-participating life business, in addition to a very large accident business. Now it issues participating policies also.

Another company, which is also in the banking and trust company business, limits the dividends on stock, to be derived from the profit on insurance, as follows:

“And that all the net profits to be derived from the business of life insurance, after deducting the expenses of the company, shall be divided pro rata among the holders of the policies of such life insurance, equitably and ratably, as the directors of said company shall and may,

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from time to time, ascertain, determine and report the same for division."

In addition to this charter provision there is the following regulation in the by-laws:

"At the stated meetings of the board in the sixth and twelfth months of every year, the board may declare a dividend of so much of the stock branch of the company as they shall judge expedient, and the same shall be payable to the stockholders on demand; but such dividends shall in no case exceed the amount of the net profits then on hand."

There is no provision for the retirement of the stock. Directors are elected by stockholders and policyholders, each voting in person only, and no qualification for a director is named in the charter.

Another company, which was incorporated under, "An act to provide for the incorporation of mutual insurance companies, for the insurance of lives or health of individuals, or against accidents to them," notwithstanding the word "mutual" in the title to the act, does not limit its dividends on stock, makes no provision for its retirement, and provides that its directors must be stockholders and elected by stockholders.

Another does not limit the dividends on stock, makes no provision for retirement of the same,

provides that directors must be stockholders and be elected by stockholders.

Another does not limit the dividends on stock except that from the surplus each year an amount equal to 2 per cent. of the reserve is to be set aside until the accumulated surplus equals 66 2-3 per cent. of the reserve. There is a provision for retiring the capital stock when a "majority in interest" of the policyholders make application, and a like majority of the stockholders shall consent. The directors must be stockholders and are elected by stockholders so long as the stock is not retired.

Another limits the dividend on stock to 7 per cent., with the further provision that every three years one-eighth of the net surplus of the period shall be ascertained and be paid to the stockholders. There is no provision for the retirement of stock and there is the following special provision in the charter:

"And be it enacted that the capital of the company may be increased indefinitely by the accumulation of profits and be invested over and above the said one hundred thousand dollars in real and personal property in the manner and at the times determined upon by the said Board of Directors."

The foregoing embrace most of the older and larger companies, classed as mutual companies with guaranty capital, and as mixed companies,

i. e., stock companies, issuing participating policies. It will not have escaped notice that, aside from the one characteristic of a mutual company with guaranty capital, viz., the interest of the stock absolutely limited to a fixed rate of dividend, the two classes of companies are scarcely distinguishable. There are to be found in each class companies that provide for retirement of stock and companies that do not, companies that permit policyholders to vote and companies that do not, companies that permit policyholders to be directors and companies that do not.

In earlier days more of these companies were mutual with guaranty capital. Of these many became purely mutual, but some have not, so little have the policyholders cared about it or so little real opportunity has been given for them to express their will, or both. In earlier years, too, mixed companies made more or less definite provisions about the sharing of profits between policyholders and stockholders. Then mutuality was believed in, and some concession had to be made. Now it is otherwise. Of the companies organised within twenty-five years, of which very few have been mentioned, almost all have been mixed companies which did not limit their stock dividends by charter and did not give the policyholders a right to vote. Neither omission attracted any especial notice.

Perhaps the presence of a provision like the following in the applications or policies of very many of the companies, whether purely mutual or with stock capital, may account for it in part:

“In any distribution of surplus or apportionment of profits the principles and methods which may be adopted by the company for such distribution to this policy shall be conclusive upon the insured and upon all parties having or claiming any interest under this policy.”

If the policyholder must take what is given him and ask no questions, he may well conclude that whether one set of men may arbitrarily apportion this, or another set of men, is of little consequence to him. This view, likewise, receives confirmation if one of his policies in a mixed company pays dividends at least as good as in a purely mutual company, which is frequently the experience.

And the fact that he finds that he is given about as much invitation to exercise an effective influence in a mixed company, even when only stockholders elect directors, as in mutual companies which take great pains not to render his vote easy to cast, or of much importance if cast, is certainly not without effect upon the opinion of the average man, which is, tersely put, that in ordinary times mixed companies are about as mutual as any.

It is affirmed, with much reason, that the pol-

icyholders' interests in a mixed company are more likely to be safeguarded by the stockholders than in a mutual company with guaranty capital, because in the former the stock can earn better dividends only by increasing also the returns to policyholders, and, on this ground, it is argued that in a mixed company the stockholders may fairly be trusted with complete control, but only with partial control in mutual companies with guaranty capital, where profits beyond the fixed dividend can be secured by the stockholders only by indirect means and presumably without benefit to the policyholders.

In other countries the respective interests of stockholders and policyholders are usually very clearly defined, as indeed they were in all early charters here. But the declaration of dividends at the end of policy years, instead of closely dividing the surplus at the expiration of certain periods, has prevented the average American policyholder from forming any clear conception of what is really done with the year's surplus, and therefore indifferent.

CHAPTER XVI

AN ANALYSIS OF AGENCY SYSTEMS

THE first company to be established to furnish life insurance on a level premium plan, the "Old Equitable," of London, has never employed an agent, upon salary or otherwise, or paid a commission. Notwithstanding this, the company has been very successful, especially in regard to returns to policyholders, and has grown slowly but surely. It now holds assets of about \$25,000,000. But the amount of new business is very small, as witnessed the following record for the last five years of new insurance issued:

1900.....	\$1,347,240
1901.....	1,087,850
1902.....	1,087,165
1903.....	1,110,320
1904.....	1,284,250

Even though such a business be successful from the standpoint of the policyholders, it must be acknowledged that it falls far short of success

from the standpoint of enlisting the patronage which life insurance deserves. Indeed, it indicates that, were no propaganda employed, the benefits of life insurance would be confined to very few. It is the sort of success which an association of consumers of coal might be, for the few who act on their own initiative and with ample means to take advantage of large purchases in advance of actual needs, while the ordinary man, living up to his income and wanting in prudence and initiative, could not be benefited by it and much less the great mass of men and the very poor. There would still be need for the dealer who sells his coal by the ton and even by the basket, and precisely in the same way the success of life insurance consists not merely in the economical conduct of a company for the few who seek its benefits on their own initiative, but also in the extension of the benefits of life insurance to all who have need for them, on as favourable terms as possible.

It may be possible to harmonise these requirements, however, as we shall see.

The payment of commissions, upon which the agency system was later established, was introduced in the form of a secret or at least private arrangement with the applicant's solicitor or financial adviser. It was perilously near to a bribe, and, while in most cases harmless enough, must on some occasions have caused the betrayal

of the client's interests. The British Parliament has been busy in recent years with legislation to penalise the payment and acceptance of commissions by an attorney, banker or other agent or employee of the applicant, without full notice to the latter. The following, from "A Comparative View of the Various Institutions for the Assurance of Lives," by Charles Babbage, 1826, shows what was thought of the practice in the early days:

"Few persons effect assurances on their lives without previously consulting either their solicitor, their agent, their broker, or some other person on whose judgment and integrity they imagine they can rely. It is therefore of the utmost consequence that no motive should be presented to those who are thus confidentially employed, which should induce them, from any prospect of advantage to themselves, to recommend one office in preference to others. That such a motive is constantly held out, and the temptation most frequently accepted, is established by too many proofs to be denied, and the frequency of its occurrence is unfortunately so great as to cause it in some measure to have lost, in the eyes of those who practise it, the disgrace which in all other transactions is attached to the offer or the acceptance of a bribe. * * * Let us now suppose the consumer, doubtful of his judgment, employs an agent of his own; it will never be

contended that an individual or a body of men can, with any semblance either of justice or integrity, offer to those agents a premium to buy at their particular establishments the article they are instructed to purchase. If such a principle is once admitted, those who sell the worst goods will both find it necessary, and be able, to offer the highest premium for a breach of trust in the consumer's agent. Yet this is precisely the conduct of almost all the assurance companies; some of them unblushingly offer, even in the statement of their terms, and most of them privately pay, what they call a commission to those persons who bring assurances to their office."

Even when life insurance agencies came to be acknowledged openly, it was rare for a long time that anybody devoted to this work his whole time and energy. It is now generally recognised that only persons who make it their sole vocation succeed in it, and men are carefully trained for it who expect to make of it a life work.

The compensation provided for in the agreements originally made with intermediaries was usually a percentage commission upon each premium paid—five per cent. being the maximum. This was, of course, very well when the commission was going to a lawyer who had other means of livelihood and also for placing an insurance which had been determined upon already, but

when men took up the work who depended upon it as a means of livelihood that was altogether another matter.

Notwithstanding, the first contracts with life insurance agents were of this type. They were taken, however, by men who had other occupations also, or independent incomes otherwise, and who saw in this a means for permanently augmenting these incomes. At first, therefore, even when life insurance agencies began to develop, soliciting was, because of the mode of remuneration, an occupation in which only persons of means or persons otherwise employed in part could engage. It would have meant much for the dignity of the occupation during some of the years of its development, had this continued to be the case, but the present state of efficiency could hardly have been attained.

The change from the original mode of remuneration came about in three ways, viz.:

First. The payment of fixed or contingent salaries, or both, to agents who went about appointing and supervising other agents and incidentally procuring applications.

Second. Advancing sums of money upon application, against renewal commissions receivable in future, or purchasing the same outright. The life insurance companies, being accustomed to deal in annuities, contingent upon survival, very naturally fell into this practice. The loans

or commutations, as the case might be, were treated as good assets.

Third. Increasing the commission for the first year, at the same time decreasing the renewal commission or even without doing so. In such case, the first commission was at first kept below the amount of "loading" which had been fixed at and continued to be the same percentage of the first premium and of each renewal premium.

The first of these methods proved least effective and most wasteful. It did not reward on a *quam meruit* basis and too often but little actual service was obtained. Moreover, it was subject to the disadvantage that the cost had little reference to the provision in the premiums for expense purposes.

The second did not help much to meet the requirements of new agents. The company would not lend or purchase renewal commissions until the policies were in force. On the other hand, the agent required to be more amply rewarded as soon as the insurance was effected.

Consequently, the third method soon distanced the others, though it did not exclude them, and, in fact, was often accompanied by one or both of them. Under this system the great life insurance companies were built up originally. A company would divide up its field into general agencies, its contract running to the general agent,

who would then make arrangements with resident agents and travelling agents, remunerating them as he saw fit.

Competition between companies drove commissions in several of them up to the highest point within these limitations and also loaded some of them with advances against renewal commissions and commuted values of the same, of very doubtful worth, owing to the poor quality of the business secured. The disappointment of the policyholders with the diminishing returns in annual dividends also made it harder to sell life insurance, which had previously been issued chiefly, though by no means exclusively, on the whole life plan.

While affairs were in this situation, there began to be failures of companies, due to bad investments and worse business methods, and then came the panic of 1873, carrying down many others, promptly or after some years of struggle. The amount of life insurance in force in the regular companies fell one-half in less than ten years. Much of this went to assessment and fraternal societies, which, though on unsound plans, attracted those who desired protection only.

Then deferred dividend plans were introduced, which, by means of giving the returns only to persistent survivors, promised endowment results at the end of ten, fifteen or twenty

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years in return for life or limited payment life premiums, and which both furnished an accumulated surplus that could be advanced without impairing the reserve in excess of commissions over the loading on first premiums and also—which was not at first apprehended—afforded concealment for the advance.

This plan, with its attractions for investors, together with the hard times which had brought many bright business men to ruin, caused men of enterprise to take up life insurance agency work as a promising vocation. These companies, accordingly, soon outstripped the others in the race for new business.

One of them introduced a complete departure from the old limitations upon first commissions, in the following manner: It made a contract, calling for the largest first commission that the loading and the other margins on the first year's premium would allow, and also for renewal commissions, and then stipulated that it would advance at once a liberal percentage against the renewal commissions. This gave, in effect, a first commission in excess of the entire provision for expense in the first premium. Before this there had been excess in this regard, but now first commissions were made about 50 per cent. higher.

It was not long before agents could have their choice between a large "brokerage" commission

or a smaller first year's commission with a renewal interest. The subterfuge of putting the former as, in part, an advance against or a commutation of renewal commissions, was sometimes employed, but often neglected. All idea of a limitation was abandoned by some companies, and, indeed, no clear conception of a proper limitation has yet been agreed upon. Naturally the effect was demoralising. It is not too much to say that in some companies the limit has been every cent that could be expended without rendering themselves insolvent and with utter disregard for the rights of policyholders to accumulated surplus—in effect changing policies with participating premiums into non-participating insurances.

Under the general agency system, an attempt was made to put the general agent between the company and the soliciting agent, requiring the former to furnish the funds for the excess brokerage commissions of the latter. This attempt was usually ineffectual, the general agent requiring to borrow this money from the company against his renewal commissions or even holding out for increased commissions or bonuses to cover it. The efforts to shift the burden merely made the system more costly.

Many general agents were financially ruined, however; yet others were ruined in health by the pressure and strain. But those who by

shrewdness and perseverance won in this speculation often had rich prizes at the end—incomes of \$50,000 or even \$100,000 or more per annum. There were, in regard to one company, great scandals over loans to certain agents—as, for instance, more than \$500,000 to one firm; the renewal commissions paid that debt completely, and from the margins above an estate of almost \$1,000,000 was accumulated, it is said.

The wastefulness of this system—especially when over-large fields were assigned—has been recognised more recently, and now there are three systems on trial to succeed it, viz.:

The direct agency system, each agent having a direct contract with the company, reporting directly or to a cashier of the company and supervised by an appointee on salary or with a contingent, overriding first year's commission.

The general agent system, with small fields allotted.

The brokerage system, with direct contracts, company cashiers and an open field.

The first of these has so far proved the most effective, the last the most expensive, so far as can be told from the reports to the departments. The second, as carried out by some companies, seems to be both economical and reasonably effective, but in other companies has been most wasteful.

The worst feature has been the want of a cri-

terion by which to measure the economy or the efficiency.

The companies engaged in the industrial insurance business, collecting small weekly premiums, appear to have solved the problem of securing effectual service in obtaining new applicants at a minimum cost. They, of course, do incur much larger expense in collecting renewal premiums. But for this compensation they also require the agent to make good all losses of premiums by lapse before he is entitled to any commission for new business. For any excess of new premiums over lapsed premiums they pay liberally; but on the whole the cost of new business is low with them, and the companies that transact a business with annual premiums might imitate their system to advantage.

In the beginning of this chapter the "Old Equitable" was cited as one extreme in the matter of agency expenditures, viz., none at all, and reference was made to the very small new business transacted. It might be supposed that the other extreme would necessarily be the company transacting the largest new business, but such is not the case. In the British empire, for instance, the company securing the largest volume of new insurance pays only a small brokerage commission under direct contracts and with no renewal commissions. Its system is admirably economical and

wonderfully effectual. The other extreme is really found in companies which pay extravagantly for new business and still secure but little and that little of poor quality and short duration.

CHAPTER XVII

PROVISION FOR EXPENSES—ANOMALIES IN LOADING

THERE was no express provision for expense in the first premiums of the "Old Equitable." Very little expense was incurred, in fact, and fortunately the assumptions as to mortality and interest were so conservative as to provide liberal margins. When a change was made from Simpson's London table to the Northampton table, the management found the reduction of the premiums so considerable that they put on a "loading" of 10 per cent., but this was taken off after experience had shown it to be unnecessary.

From that time, however, until about a quarter century ago—fully 100 years—the gross or office premiums, actually demanded by regular life insurance companies, were always computed in the following fashion: The level net premium, according to the mortality table and rate of interest assumed, was first calculated. To this was added a level "loading," *i. e.*, the same amount each year, making the total gross or office premium level also.

Manifestly this answered very well, so long as nothing was paid for introducing new insurances and also so long as commissions were paid only in the form of a small percentage upon each premium. But, as soon as enterprising efforts for business were indulged in, the inapplicability of this system was or ought to have been evident. When, in order to obtain agents, companies had first to promise loans against renewal commissions and later to pay, in salaries, advances or commissions, more than the loading upon the new premiums, there was occasion for a change of system.

Conservatism fought against a change. One company would oppose it in the fear that commissions yet larger would then be paid; another because to square the theory with the facts would perhaps encourage setting up new companies and enable smaller and weaker companies to compete.

The need for a change of basis was earliest seen in Germany, where Dr. A. Zillmer, a famous actuary, discovered that as to whole life policies with premiums for life—then much the most popular form—the first year death-losses, contribution to expense of management and initial cost, *i. e.*, commission, medical examiner's fee, etc., absorbed the whole first premium. He proposed, therefore, that a system of loading be employed as follows: Allow the whole first

year's premium for mortality and expense. Compute the level net premium at an age one year higher. He made the point, however, that not so large a provision for initial expenses is needed or should be made in the case of limited payment and endowment insurance.

Leading actuaries in many countries have endorsed this method as reasonable and fair, among them the greatest living British actuary, Dr. Thomas Bond Sprague, and the greatest living American actuary, Emory McClintock. It has been made use of by many companies in perhaps all countries where life insurance has been successful.

In some countries other methods more or less arbitrary or at least empirical have been employed to produce a like result. As, for instance, in France, where an attempt was made to determine scientifically the amounts and the incidence of expense requirements of various sorts and to load so as to provide funds to meet them as they are incurred. Or Sweden, where by law initial expenses in excess of the first year's level loading were allowed by law, as an asset, to the amount of \$15.00 per \$1.000 insured, to be made good within five years.

In Great Britain, even as to companies which did not employ Dr. Zillmer's device, known as "preliminary term," the agitation of the subject caused the actuaries to give attention to the

adequacy of "loading" from a mathematical standpoint. Accordingly a special level loading was put upon the premiums, equivalent in present value to \$10.00 or \$15.00 per \$1,000 insured. This made the gross or office premium large enough to provide for an excess of initial expenses by that much, but did not set free the funds at the outset for this use.

These actuaries would have been loud in denunciation of an actuary who had dealt thus with a provision to meet losses, *i. e.*, had computed the premiums so as to be mathematically equivalent in present value to the claims payable, but not so as to enable these claims to be met when incurred. Their procedure in regard to initial expenses is equally illogical and would have seemed so, inevitably, had not the system of loading been reputable because intrenched, before the problem was even thought of.

The "preliminary term" method of providing for initial expenses began to be used in the United States by regular life insurance companies about ten years ago. A few of the companies already in existence adopted it and nearly all the new companies have done so, until now about half of them in number seek in this manner to provide for cost of new business as the same is incurred.

There have been some abuses. Many of the companies have disregarded Dr. Zillmer's con-

servative limitation of the preliminary term provision, *i. e.*, to the amount of the ordinary life premium, putting up some reserve the first year out of higher premiums, which, by the bye, was insisted upon also by Dr. Sprague and Mr. McClintock; the pace set by older and larger companies rendered strict adherence to those limits difficult and onerous. A few applied the device most unconscionably to so-called "bonds," purporting to be investments and scarcely involving insurance at all. Two or three others have openly or surreptitiously taken the first two premiums for current expense and losses—a practice that seems indefensible when the purpose of this method of "loading" is to provide commissions upon the first year's premium only.

All the foregoing relates only to differences between the practices of different companies in "loading" premiums for the same kinds of policies. Custom, growing out of conceptions of business requirements, has caused even greater and more glaring anomalies to creep into the "loading" of the premiums for different forms of policies in the same company. These anomalies are usually to be found in the premiums of practically all the companies.

First, as between whole life premiums and limited payment life premiums. The insured is purchasing identically the same insurance under either form; the sole difference is in the mode

or term of payment. The premiums ought, therefore, fairly to be equivalent mathematically. The net premiums are, of course; for their present values are precisely equal. If the "loadings" were equivalent, then the gross or office premiums would also be equivalent. But are they? The following shows the "loadings" on the premiums indicated and their present values:

Loadings and Present Values of Loadings.
Age, 21. American Experience and 3 per cent.

Plan.	Annual.	Loading
		Present value.
Life	\$4.90	\$111.76
Life, 20 Payment...	6.36	90.94
Life, 15 Payment...	7.25	84.65
Life, 10 Payment...	9.04	76.78

The foregoing are from the rates of premium of one of the most important companies; the "loading" of the premiums of most companies is similarly unequal.

According to the practice of American companies, the annual loading in each case is treated as earned as soon as it is received. This seems to charge the limited payment policies unfairly for current expenses; and, indeed, they are at a disadvantage until after the payment period is completed. Then, with no loading to pay their portion of the expense, they become a burden upon other policies or are mulcted by apply-

ing the surplus derived from interest or mortality.

In some of the other countries the extra loading on limited payment life policies is reserved during the payment period and released year by year after that period has closed, to meet the policy's share of current expenses.

Yet greater anomalies are apparent in the loading of endowment premiums, as appears from the following comparisons from the premiums of the same company:

Loadings and Present Values of Loadings.
Age, 21. American Experience and 3 per cent.

Plan.	Loading	
	Annual.	Present value.
Life	\$4.90	\$111.76
Endowment, 20 years . . .	9.20	131.55
Endowment, in 15 years.	11.87	138.59
Endowment, in 10 years.	17.23	146.34

Business exigencies and requirements are the excuse for these inequalities. No more insurance, even during the term, is supplied by an endowment insurance than by a whole life insurance; indeed, not so much actual insurance above the reserve which in an endowment policy equals the sum insured at the end of the period. A larger loading than on the life policy handicaps the investment, is a direct burden upon it

and really a deduction from money paid to the company for investment purposes only.

It reaches the extreme of absurdity in the loading of the ten-year endowment premium, which at this age is actually nearly as much as the entire whole life premium at the same age, \$19.62, and the present value of which exceeds the present value of all the loading which a whole life policy issued at the same age would contribute throughout its entire existence.

To look at the matter another way, consider two cases. Two men, aged 21, purchase policies of the same company: one a ten-year endowment policy for \$10,000, with a premium of \$1,058.40; the other a whole life policy for a like amount, with a premium of \$196.20. The latter invests the difference in premiums, \$862.20, each year, at $3\frac{1}{2}$ per cent. interest, compounded annually. In event of his death his policy is paid and his dependents also have the accumulation of his investment. At the end of ten years the two stand as follows:

The endowment policyholder.—Insured for ten years for \$10,000. Guaranteed at end of ten years \$10,000. Surplus, perhaps, \$1,000.

The life policyholder.—Insured for ten years for \$10,000. Also with investment worth at the end of each year (and available in event of death) as follows:

End of first year, \$892.38; end of second year, \$1,815.96; end of third year, \$2,771.88; end of fourth year, \$3,761.35; end of fifth year, \$4,785.38; end of sixth year, \$5,845.20; end of seventh year, \$6,942.17; end of eighth year, \$8,077.52; end of ninth year, \$9,252.61; end of tenth year, \$10,468.83.

Guaranteed at the end of ten years: On life policy, \$849.10 reserve; on investment, \$10,468.83. Total guaranteed, \$11,317.93. Surplus on life policy, perhaps, \$400. Total, \$11,717.93.

Singularly enough, even in companies which assail the attempt to accommodate the first year loading to the requirements of initial cost by means of "preliminary term," flagrant discriminations, such as this, are practised, literally without a thought of their inconsistency and injustice.

CHAPTER XVIII

WHEN IS NEW BUSINESS PROFITABLE?

IN a stock company with all the profits going to the stockholders it ought not to be difficult to answer the question: When is new business profitable? Obviously the failure or success of the company depends upon its being answered correctly also. But that it is not so easy to solve is indicated by the following facts:

The "Old Equitable" found stock companies demanding 5 per cent. per annum for five and seven year term policies. Even these earlier premiums, high as they are, did not allow profit enough for them. Most of them had done but little business comparatively and at as high rates as could be secured.

In the United States there were stock companies at Boston, New York and Philadelphia before participating or mutual insurance was introduced. Every one of them has quit the business. Since that time at least two other companies have tried it on a large scale, one with

an unprecedented capital, the other with an immense accident business to pay its way and earn profits. Neither now does a non-participating business exclusively.

In a mutual company the problem is more involved; one must bear in mind that the new applicant is himself entitled to participate, as soon as he is admitted. It is not merely to determine therefore the largest expenditure that will admit of making money out of him, but rather to determine what expenditure will yet permit him to participate precisely as do his fellows, while preserving to all of them the largest measure of participation possible on any basis as to new business transacted, *i. e.*, from a small to a very large business.

The subject is fascinating. Its investigation would inevitably have enlisted the best actuaries in the United States, had it not been that in this country alone actuaries have little to do with the business management of companies and next to nothing with their agency management.

It is a study in dynamics—at least as attractive and illuminating as the study of the pressure of population and its effect upon land values and, in part, of much the same character. Thus, for instance, in some companies the desperate experiment has been tried, in order to keep up appearances, of paying a commission nearly or quite equal to the whole first year's

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premium. This, of course, renders it profitable to the agent to give away policies virtually. These policies do not renew usually, unless the insured is in bad health at the end of the year. The company, therefore, carries the year's risk for nothing—in fact, is badly out of pocket for other expenses incurred thereby—and saves as renewing policyholders only impaired lives. That is not profitable, clearly.

But at what point, then, does saturation, if the expression is permissible, take place, without waste of expenditure? That is, what expenditure brings the largest result in renewing business, a larger expenditure bringing too small additional results to pay? The close analogy between this problem and that of land values is obvious. Patient investigation of the results of the experiments in agency systems of any large company might yield an approximate answer, for that company at least, though the individuality of agents cuts so large a figure that perhaps a broad enough basis to make the deductions safe could not be secured.

The thing is also rendered puzzling by the differences in companies and in the relative potency of their appeals to popular favour. One company, the largest in the British empire, seems to have solved the question for itself most successfully, for at a low rate of initial cost, not exceeding an average of about 30 per cent. upon

the first premiums, it secures annually a larger new business in proportion to the population of the field it covers than does any other company in the world—in competition with the three largest and most vigorous American companies at that.

While it would be most difficult and perhaps impracticable to find a solution of general application of the question, what scale of initial expenditure yields the largest possible results in good, renewing insurances, it is possible to get at the subject from another side. In this aspect, profit and not merely efficiency is considered, and from this point of view a limitation to the cost of new business to yield a profit may be found.

Let us take the case of the “Old Equitable” and see if we can find a way to determine what it might have done in 1904 in the matter of expenditure for new business, without causing its policyholders to receive lower earnings than were in fact realised. The new business of the company, secured without the payment of commissions, was \$1,284,250. The new members are paying premiums, exceeding the net premiums by a safe mortality table, by a loading sufficient to cover their shares of the expenses of management and to secure them the same rate of bonus or dividend as others. For several years to come mortality losses among them will be lower than

among members of the same age but admitted earlier. But this advantage, less the cost of their medical examination, will go to all the members.

A large new business would give a broader basis for the distribution of expenses of management and a larger net advantage to all from salvage in mortality losses. The expenses of management would be increased, however, were the new business much augmented, and, remembering that it is desired that the new business show gains above the profit which the amount of new business secured without expenditure shows, it is safe to premise that at least the gain to the policyholders because of a broader basis for distributing management expenses, must be preserved, especially if no expense of management be charged against the first-year premiums. For there are two losses to offset, viz., a commission paid for the business that would have been had without paying a commission, and the foregoing of contributions to management expenses by policies in their first year.

This permits, then, an expenditure for new business of the expense loading on the first year's premium—*i. e.*, the level loading upon a level net premium—plus the present value of the mortality gains by reason of fresh selection. Under the loading system of leading American companies, this admits of initial cost of new business as follows, without prejudice to the

dividends of policyholders, as compared with accepting only such new business as offers voluntarily and without the payment of a consideration for the business.

Taking representative premiums, American Experience, 3 per cent.:

Plan.	Premium.	Loading.	Age 25 Gains on Mortality.	Total.	Per cent.
Life	28.11	7.03	10.75	17.78	.63
Life, 20 P.....	38.34	8.49	10.52	10.01	.50
Life, 15 P.....	45.91	9.57	10.37	19.94	.44
Life, 10 P.....	61.53	11.80	10.02	21.82	.36
End 20 years..	52.47	10.50	10.21	20.71	.40
End 15 years..	70.50	13.08	9.86	22.94	.33
End 10 years..	107.70	18.40	9.04	27.44	.24

Taking representative premiums, American Experience, 3½ per cent.:

Plan.	Premium.	Loading.	Age 35 Gains on Mortality.	Total.	Per cent.
Life	27.30	7.39	10.67	18.06	.66
Life, 20 P.....	36.00	8.60	10.48	10.08	.53
Life, 15 P.....	42.60	9.55	10.34	19.89	.47
Life, 10 P.....	56.30	11.52	10.01	21.53	.39
End 20 years..	50.80	10.68	10.16	20.84	.41
End 15 years..	68.60	13.23	9.79	23.02	.34
End 10 years..	105.60	18.58	8.93	27.51	.26

These percentages cover all that can be paid for new business to yield a profit, *i. e.*, to main-

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tain at least as good dividends for all policyholders as if no commissions were paid, and only such new business were taken as comes in without the labours of paid solicitors. They cover also the entire outlay, *i. e.*, for all expenses chargeable to new business, and not commissions only; and they apply without regard to whether the "preliminary term" device is in use or not. That device serves merely to furnish funds to meet the preliminary expenses when needed; it does not in any sense afford a criterion as to what rate of expenditure secures the best results for the policyholder, though it is much better even as a criterion than is none at all, for it at least runs up the danger signal of possible impairment when its liberal provision for initial expense is being exceeded. The old system leaves managers without even this chart to sail by, and many have gone upon the shoals or the rocks for this reason.

It is interesting to observe that the companies in the United States which are giving the best dividends to policyholders are those which have kept the cost of new business pretty well under the percentages given in the foregoing illustration; which is, perhaps, a practical demonstration of their general correctness, apart from the *à priori* reasoning which deduced them.

CHAPTER XIX

LEGAL RESERVE REQUIREMENTS AND THEIR EFFECT

It is needless to say to the readers of this series that the law is not responsible for the necessity for reserves, but instead the necessity for reserves is responsible for the law.

A level premium to cover an increasing risk is of course larger at the outset than is needed to cover the current cost of the insurance, and smaller, later, than the current cost. It can be maintained level only by reserving the overplus in the early years to meet the deficiencies in the later years. For a company to collect these full premiums and yet to fail to hold in reserve the accumulation from them which will be required in order to fulfil its engagements is to perpetrate a fraud upon its policyholders.

The sound mathematical basis of the first company to undertake a level premium business called for valuations from time to time, showing whether the accumulations actually in hand were equal to the reserves required. This was not neglected, also, and thus from the very outset a

good example was set in the matter of business prudence and a due regard for solvency.

The first premiums employed by that company were net, *i. e.*, were not loaded for expenses or contingencies. They were based upon a mortality table, deduced from the "mortality bills" of London, and fortunately were redundant. In computing what reserves were necessary, and what surplus was on hand, the following course was pursued: A balance sheet was drawn up, showing on the resources side the cash on hand, the invested assets, the accrued interest and the present value of all premiums to be received in future; and on the liabilities side, the outstanding claims, the amounts of interest and premiums received in advance and the present value of all the death claims payable in future. The amount required to strike a balance would be surplus or deficiency, according as the resources exceeded the liability, or the contrary. The account stood then, assuming it showed a surplus, as follows:

Resources—	Liabilities—
Present value of future premiums.	Claims unpaid.
Interest due and accrued.	Interest and premiums in advance.
Investments.	Present value of future claims.
Cash on hand.	Surplus.

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In all the foregoing, nothing has been said about reserve. But the present value of future claims is computed by assuming that the deaths will occur according to the table and that interest at a given rate can be realised upon the funds until required, and the present value of the premiums is computed by assuming that the policyholders survive to pay premiums precisely according to the mortality table and on the same assumption as to interest. And, obviously, whatever of the present value of future claims the present value of future premiums fails to cover needs to be made good by present assets, reserved for that purpose and accumulated at interest until needed. That is the reserve.

The foregoing balance sheet form has been discarded in Great Britain for two others, more nearly as follows:

VALUATION.

Present value of future premiums.	Present value of future claims.
Reserve required.	

STATEMENT.

Assets—	Liabilities—
Cash on hand.	Claims unpaid.
Investments.	Life insurance fund.
Interest due and accrued.	

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In the United States only the "statement" is given and in that "life insurance fund" gives way to "reserve" and "surplus," the present values of claims and premiums are not computed separately and the meaning of the reserve is therefore not so apparent.

As has been said, the first gross or office premiums of the first company to do a level premium business were the net premiums by the very standards of mortality and interest used in the valuation. When that company changed its standards, it "loaded" the net premium; but in its valuations necessarily the question arose: Should it treat the entire premiums receivable as future resources available to meet future claims, or merely such part of the future premiums as equalled the net premiums by the mortality table and interest used in the valuation?

At this day the proper reply appears to be obvious. The loading must have been added to meet future expenses and contingencies. To admit its present value to the balance sheet, without a corresponding entry for future expenses and contingencies, would be to throw all this provision into surplus, immediately available, and thus, by reserving only sufficient to supplement future gross premiums in meeting future claims, to strip the company of all the provision for future expenses and contingencies.

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As life insurance developed, the issue between "gross valuation"—*i. e.*, by allowing the present value of gross future premiums only—became very strenuous. The greatest actuaries were hopelessly divided on the question; some of them were led into certifying to the solvency of concerns which were already wholly ruined.

In the United States, in the earliest days of life insurance, companies did about as they pleased. No very clear conception did they have of valuation or reserves. Some of them even gave back in dividends all that was left after paying current claims and expenses. Others accumulated funds, but did not know how to determine what accumulation was required. Usually they made use of the same premiums as established British companies, so that if there was not extravagance or inflated apportionment of dividends, the accumulation was likely to be equal to the required reserve. But the companies had no means of knowing that it was.

The introduction of the requirement of a definite reserve is due almost wholly to one man, Elizur Wright, the Commissioner of Insurance of Massachusetts. Mr. Wright was already an old man when appointed to office; but he was both an expert mathematician and a reformer, precisely suited to the work he undertook.

His skill in mathematics made it possible for him to absorb very quickly all that books could tell him about the subject; his reform sentiments led him to make prompt application of what he had learned. He first called for statements from each company doing business in Massachusetts, including the reserve upon its policies or else a schedule of the same ready for his valuation. He computed the reserves by a mortality table deduced from the experience of seventeen British offices, known in this country as the Actuaries' Table, and 4 per cent. interest. This table had just then been introduced. It was the first to be taken from the combined experience of insurance companies. In making these valuations he employed net premiums only, in effect allowing the excess of the gross premiums over the net premiums as an offset to future expenses and contingencies.

His methods were contested promptly and bitterly. One of the American companies filed its own statement of reserve liability, a sum far too small to answer the requirements. Yet a certificate from a leading professor of mathematics was put behind these figures. He also ridiculed Wright's methods and pretensions.

A much more serious attack was made upon the commissioner's mode of valuation by the two leading actuaries of Great Britain on behalf of a British company, the valuation of which by

one of them he disputed. The following short selections from the correspondence are interesting:

“The calculations of the commissioners, in the report alluded to, being based on a hypothesis of fictitious premiums, having no relation whatever to the society’s tables or the premiums actually receivable, are necessarily fallacious, and may be regarded purely as a fabrication. It would, therefore, be a waste of time to enter on any discussion of them beyond the announcement of this undoubted fact.”—W. S. B. Woolhouse.

“The commissioners apparently wished in their calculations to determine the value of the net premiums, although they have not succeeded in doing so. Let us, however, consider whether a valuation of net premiums is really that which in justice was required, or which is sanctioned by practice. Calculations intended for the public security do not require to be made in the analytical forms which may be needed for the regulation of many of the internal affairs of a company; but still it is well known that many of our wealthiest, largest and undoubtedly best established offices, even for the adjustment of their own interests as among the members themselves, as well as with the public, have always valued the gross premiums, and still continue to do so. It is held that the whole of the premiums

is as completely and as entirely the property of the society as a part of it, and there is as much right to calculate on receiving the one as the other. A few years ago two able papers were read before the Institute of Actuaries by one of its leading members, insisting on a valuation of the gross premiums as being a correct way of proceeding, and that any other is merely dealing with fiction, and not with facts.”—F. G. P. Neison.

“There is no room here for more opinion in this matter; it is a simple case for the application of strict mathematical principle. The standard of value adopted by the commissioners on the thirty-sixth page, is ideal and fictitious, and must yield to the actual facts as they are embodied in the reports of your actuaries.”—Benjamin Pierce.

Both the American company and the British company soon proved the correctness of Elizur Wright’s diagnosis, and prognosis as well, by becoming commercially insolvent. Mr. Wright laid down the following standards:

Assume that the mortality will be precisely as per the Actuaries’ Table, *i. e.*, as was the combined experience of seventeen British companies.

Assume that net interest of not more than 4 per cent. will be realised—a very conservative assumption then, but justified by the event.

Assume that the future expenses and contingencies will precisely absorb the "loading" provided to cover them; consequently make a "net valuation"—i. e., allow the present value of future net premiums only.

The commissioner of Massachusetts had in this contention the support of most of the American companies and their actuaries.

The State of New York soon followed, first using a British census table, known as Farr's No. 3, and 5 per cent. interest as its standard, and later substituting the American Experience table, deduced from the experience of the largest American company, and $4\frac{1}{2}$ per cent. interest. Since then State standards have been according to one or other of these tables, with interest from $4\frac{1}{2}$ per cent. to $3\frac{1}{2}$ per cent. The standard in Massachusetts, New York and Pennsylvania is now the American Experience Table and $3\frac{1}{2}$ per cent. for all insurance issued since 1900 and the Actuaries' Table and 4 per cent. for all before that date.

It will be observed that in all this no provision is made for the excess of first year's expenses over the difference between the gross level premium and the net level premium for the first year. At first this was of little importance because commissions were very small, but later it cut a larger figure in life insurance affairs.

The first mode of evasion was by means of advances against renewal commissions which were allowed in the statements as valid assets, commissioners not divining, apparently, that this was tantamount to permitting the "loading" to be anticipated in part, precisely as if the valuation had been by allowing the present value of more than the net premiums.

The following descriptions of the conditions which followed the reversal of this attitude of the commissioners were given by the most eminent living American actuary:

"The net reserve system has many elements of advantage, but there is one evil connected with it which it was heterodox to discuss thirty years ago, but which is now widely understood and admitted. This evil consists in the requirement that a reserve must be laid aside out of the first year's premium. I am speaking particularly of ordinary life policies, and what I have to say requires qualification if applied to any other form. It has long been recognised that the expense attending the procurement of business is so great as to permit no actual accumulation of reserve out of the first year's premium. The risks have just passed the doctor, it is true, yet death losses will occur within the first year, and must be paid. Apart from the commissions to agents, there are other well-known expenses attending the prosecution of new business, and

these other expenses are in some companies greater in amount than the commissions paid for new business. While not always strictly true, it may be laid down as a general statement that the commissions and the other expenses taken together will use up pretty much all the first premium.

“The highest living authority, Dr. Sprague, of Edinburgh, called attention some time since to the fact well known in Great Britain that the expenses of new business practically consume the first premium, and proposed that the reserve should begin to be accumulated out of the second premium. There is much to be said for this proposition, particularly in the case of companies newly organised, which have no assistance from any of the sources of miscellaneous profit which an established company possesses, such as annuities and non-participating insurances, and no penalties contributed by retiring policyholders towards the expense of replacing the discontinued risks.

“While other causes were at work, the chief cause of the universal slaughter of small companies, which took place about twenty-five years ago, was the legal requirement of a reserve in the first year of each policy. The energies which in this growing country might have been turned toward the establishment of new and prosperous life companies, were directed by this reserve

difficulty into another channel, and a great cry arose for life insurance without reserves. Had Dr. Sprague's proposal been available under our laws, we should have heard comparatively little of assessment insurance with all its good and all its evil."—Address by Mr. Emory McClintock, Convention of Insurance Commissioners.

"At the end of 1868, when the law was beginning to be enforced closely, there were doing business in New York twenty companies organised after the war, and of these every non-industrial company—that is to say, all of the twenty except the Metropolitan—failed. In 1869 nine more new companies began to do business, every one of which failed. In 1870 and 1871, four or five new companies began business, all of which failed. Most of the companies which commenced business before the end of the war had acquired stability by age, although some of these older companies also failed during the trying times of the early seventies.

"To sum up this remarkable history, all non-industrial companies doing business in New York prior to 1875, to which the net valuation law was rigorously applied during the first few years of their existence, failed. Since 1875 we have seen one or two companies established in New York, notwithstanding the law, such as the Provident Savings, but any such company has

in self-defence been compelled to confine its earlier business to plans requiring little or no reserve liability, such as the natural premium plan or the renewable term plan. The well-known practical impossibility of establishing a regular life company under a rigorous enforcement of the net valuation law remains unchallenged by any example to the contrary. * * *

“The legal difficulty was this: For every policy issued a reserve had to be put up, somewhat exceeding half the first year’s premium, and out of the remainder of the premiums the new company had to pay its current death losses and expenses of all descriptions. After a company is once fairly established its business is so much larger as to reduce the pressure of its general expenses, as distinguished from the expense of procuring new business, and towards the expense of procuring new business the established company has resources which are wholly wanting at the start. Those who drop their policies in an established company are expected to leave behind them something in the way of “surrender charge” as their contribution towards the cost of replacing the risks withdrawn by their discontinuance, and there are some other sources of profit, as for example the gains which may arise from non-participating business. An established company can therefore put up the reserve on new business required by the law,

while a new company cannot.”—Mr. Emory McClintock in United States Review.

For nearly a quarter century after this “rigorous enforcement of the net valuation law,” as was stated, no new company on the usual level premium plan was founded which achieved success. Most of their managers but dimly understood what ruined them.

About ten years ago “preliminary term,” which had been introduced in this country some five years earlier in connection with certain companies not under the legal reserve laws, was given a trial by some of the smaller of the older companies. Shortly afterward and until this day new companies have been organised to operate on that basis.

This provision is as follows: The first annual premium is paid and received for an insurance for one year only. It is agreed that if the policy be renewed it shall be as a level premium policy, with full reserves, from the date of the renewal.

This plan, as has been seen already, had strong endorsements in Germany, Great Britain and the United States, so far as applied to whole life policies only. Except by a few companies, however, this limitation has not been regarded in America, and several leading American actuaries have endorsed it, without reference to the limitation.

The method of escaping the excessive reserve charge the first year has been by making the contract such in its terms that the policy must be valued as for one year term insurance the first year. The policies have been so construed by all the insurance departments, excepting those of Massachusetts, Vermont and the District of Columbia. In Massachusetts the court of highest resort has upheld the discretion of the commissioner. In Vermont the court of highest resort has twice held adversely to the commissioners and in favour of the natural construction of these contracts according to their terms. There has been no final issue in the District of Columbia.

There are at least three glaring faults in the system of charging net reserves on the basis that the net premiums are level, viz.:

1. The absence of a fair provision for first year's expenses, which almost wholly prevents the establishment of new companies and the success and growth of small companies, while old and strong companies borrow from policyholders' surplus the funds which they require for this purpose.

2. The charging of policy liabilities as if the mortality were, throughout the life of the policy, precisely as per the Actuaries', or the American Experience Table; whereas the mortality for the first year is not more than 50 per cent.,

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the second year 65 per cent., the third year 75 per cent., the fourth year 85 per cent., and the fifth year 95 per cent.

3. The failure to furnish a reliable criterion by means of which to determine what rate of initial expenditure is profitable.

It was suggested by a former actuary of the Massachusetts department that these gains might in some way be offset against the excess cost of new insurances. The following presents his views, including a vivid picture of the conditions when "rigorous net valuation," *i. e.*, with "preliminary term" proscribed, is enforced:

"As it seems to me, we are right up against this very pertinent and insistent question, 'Do we need and want any more life companies than the twenty or thirty which we know are now firmly established?' If we do not, all right; let the present effective processes of choking down and strangling the kids and weaklings go on. If we do want them, is there not some reasonable method of relief and aid possible?

"Under the prevailing method of compensating agents and solicitors it seems impossible for a new or small company to acquire sufficient business to give it a chance of survival. We all know where the trouble is, and that it seems out of the power of managers or laws to correct it. Everybody admits the conditions, but our high

authorities, instead of suggesting or attempting to find a practical and legal remedy, content themselves with asserting that under the prevailing net valuations the inevitable alternatives are failure or an evasion or violation of the law. Now, is this really so, and is it not possible by holding a strict regard to the actual facts, to find a reasonable measure of relief?"

The method suggested by him was by an allowance for salvage on mortality losses during the first five years.

Though such a method for offsetting these gains against initial cost has received the endorsement of several leading actuaries and the qualified endorsement of others, no steps have been taken to amend the legal reserve laws. Such an amendment, if made, would intimate to each company very plainly the conservative limit of profitable expenditure for new business, and if accompanied by suitable provisions for reporting the amount of the provision in the annual statements, would afford an excellent basis for comparing the economy and efficiency of the agency managements of companies.

Preliminary term, confined to the ordinary life rate, as recommended by Actuaries Zillmer, Sprague and McClintock, gives margins very nearly the same as this system, as appears by comparing with the tables printed in Chapter 18, the following tables:

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THREE PER CENT.

Plan.	Premium.	Loading.	Allowed.	Total.	P.C.
Life.....	28.11	6.37	13.05	19.42	.69
Life.....20 P.	38.34	7.56	13.05	20.61	.54
Life.....15 P.	45.91	8.43	13.05	21.48	.47
Life.....10 P.	61.53	10.26	13.05	23.31	.38
End.....15 yrs.	70.50	11.95	13.05	25.00	.355
End.....10 yrs.	107.70	16.85	13.05	29.90	.28

THREE AND A HALF PER CENT.

Plan.	Premium.	Loading.	Allowed.	Total.	P.C.
Life.....	27.30	6.75	11.90	18.65	.68
End.....20 yrs.	52.47	9.57	13.05	22.62	.43
Life.....20 P.	36.00	7.72	11.90	19.62	.545
Life.....15 P.	42.60	8.49	11.90	20.39	.48
Life.....10 P.	56.30	10.08	11.90	21.98	.39
End.....20 yrs.	50.80	9.80	11.90	21.70	.42
End.....15 yrs.	68.60	12.18	11.90	24.08	.34
End.....10 yrs.	105.60	17.43	11.90	29.33	.28

- These tables show the margins, not counting any gains from mortality, when the "preliminary term" provision is confined to the amount of the life premium in every case, a reserve being set up out of any additional premium, paid, not for life insurance, but either to prepay premiums on a life policy beyond a certain period or to mature the policy at the end of a certain term, as an endowment.

CHAPTER XX

THE EVOLUTION OF VARIETIES OF LIFE INSURANCE POLICIES

IN the mind of Thomas Simpson, the English mathematician who brought about the organisation of the first life insurance company on the level premium plan, practically but one sort of a life insurance policy was present, viz., the policy for the whole period of life, paid for by premiums payable throughout life.

Of course, short term insurance was already in existence. In order to meet that demand, his company granted it when called for. But the whole life policy was the life insurance policy; and, except as the sale of other forms has been especially fostered in one way or another and as the field of insurance for protection only has been turned over to assessment societies and fraternities, it yet remains the favourite form.

In computing the annual premium Mr. Simpson arrived at the single premium first, and therefore the idea of permitting an insurance for the whole period of life to be paid for by one

premium in advance was presented. This was allowed, but little was made of it, though when the surplus was divided, it was applied in reversionary bonuses, *i. e.*, in purchasing paid-up additions to the sum insured, by means of the single premium rates for the same.

Manifestly, also, this whole life insurance could be paid for in ten, fifteen or twenty annual premiums, instead of in one premium or in annual premiums throughout life. That is, limited payment life policies could be offered and soon were offered. In recent years the proportion of limited payment life policies to the whole number issued each year by the regular level premium companies has been rapidly growing.

It was but a step to endowment insurances, under which the sum insured is payable at the end of a fixed period if the insured survives, or at once in event of his prior death.

Then, out of the desire to leave an annuity for the beneficiary, grew the survivorship annuity policy under which, if the beneficiary survived the insured, an annuity was payable to her for her after-lifetime. This was always a favourite with actuaries who know what the chances are and that the premiums paid are fair and proportionate to the risk, and who therefore do not feel that they are robbed in case the beneficiaries die first. Thirty years ago or more it became known that the leading American actuary of his

generation carried all his life insurance on this plan, and the same is now true of the greatest American actuary now living.

To meet the ordinary man's deep-rooted objection to having paid his money for nothing, as he would put it, in case his beneficiary dies first, the payment of the proceeds of a life insurance in instalments was introduced, the instalments running over a period of ten, fifteen or twenty years. As has already been explained, the company needed only to charge for this form of insurance the premium which it would charge for a lump sum insurance for the amount of the commuted value of the instalments. This commuted value in the cases of most policies issued before 1900 was computed at 4 per cent. interest; of policies issued since then, at $3\frac{1}{2}$ per cent. by some companies and at 3 per cent. by others. A very few companies pay the net surplus interest realised on the fund, as a cash dividend, with each instalment. The instalment plan could be and usually is applied to all the usual forms of policies when desired.

The ordinary man soon found an objection to this; having run out, it might and in many cases would leave the beneficiary without an income precisely in her old age when this would be most inconvenient.

To meet this objection Emory McClintock, actuary of the largest company, invented a very

simple device which nobody had had the wit to think of, viz., a policy which paid so many annual instalments certain, and if the beneficiary survived that term continued the instalments so long as she lived. This answered the ordinary man's objection to the survivorship annuity plan, for now, even though the beneficiary died before the insured or soon afterward, the instalments would go on for the period certain and all the money paid was not lost. And also his objection to the instalment policy, for now certain provision was made for possible survival of the beneficiary beyond the period certain.

This was also applied to endowment policies, the annuity being payable for the after-lifetime of the beneficiary in case of the death of the insured during the period, but for the after-lifetime of the insured or of the last survivor of the insured and beneficiary in event of the insured's survival of the endowment period, in each case the instalment being payable for twenty years certain. By means of this policy one may make certain of—

1st. An income of \$1,000, say, per annum to his widow for life.

2d. A like income to a designated beneficiary (or the insured's estate) after the death of the widow if she fails to survive twenty full years, for the remainder of the twenty years.

3d. A like income beginning at the end of the period and for the life of the insured and the beneficiary and until the last survivor succumbs.

4th. Should the insured and beneficiary both die in less than twenty years after maturity a like income to a designated beneficiary or the insured's estate for the remaining years to make up twenty full years' payments.

Yet another application of the plan of paying the proceeds in instalments is the so-called guaranteed interest bond, the condition of which is that after the maturity of the bond by the death of the insured or the completion of the endowment period, the company will pay interest annually at a certain rate upon the principal sum either for a fixed term of years (or for the after-lifetime of the beneficiary or of the insured) and at the expiration of the period (or the life) will pay the principal sum.

When the rate of interest is that which the company actually uses in computing its premiums and reserves, this policy is likely to be just what it purports to be and the premium for \$1,000 of such insurance to be just what the premium for the same amount of insurance, payable in a lump sum, would be.

But when the rate of interest guaranteed is higher than the rate used in the computations, it means that the additional interest, so-called, is

provided by charging a premium for a sufficiently larger amount of insurance to furnish this larger annual instalment.

Very few companies pay over any surplus interest which is earned upon the funds held to provide these instalments and deferred benefits above the rate used by the company in its premium and reserve computations; but some of them do.

These are the principal forms of life insurance; with the exception of semi-endowments and double endowments, the former paying half as much in event of survival as in event of prior death and the latter vice-versa; they may, indeed, be called the only forms.

Notwithstanding which, the public is led to believe that there are almost as many kinds of life insurance policies as there are companies. Distinctive names like Tontine, Semi-tontine, Distribution, Accumulation, Dividend Investment, Dividend Endowment, etc., are given them. These really refer solely to the conditions as to time and method of surplus distribution and the application of the surplus. Usually they mean merely that the apportionment of surplus is deferred ten, fifteen or twenty years.

At the close of these periods options of settlement are given. These are no more than privileges to apply the surplus or the entire cash value, being the surplus and reserve, to pur-

chase paid-up insurance or a life annuity, or to withdraw the same in cash.

Applicants are frequently misled by the quotation of results, including surplus accumulations, of such policies, into supposing that a twenty payment life policy or even a whole life policy, with a twenty-year surplus period, is a twenty-year endowment. Under such policies the guaranteed cash value at the end of twenty years is merely the reserve for the twenty payment policy or the life policy as the case may be, always much less than the face of the policy, and the remainder of the total cash value quoted is surplus which may have been realised in the past, but is no earnest for the future, while a twenty-year endowment policy yields a guaranteed return of the face of the policy, besides all the surplus. Purchasers should carefully distinguish, therefore.

The deferred surplus plans, as applied to endowment policies with the same periods, reverse the life insurance before the periods are completed. That is, there will be a loss instead of a gain to the beneficiary because of the policy on account of the death of the insured during the last year of the period. For, suppose that \$300 surplus per \$1,000 has been realised and will be payable if the insured survives the twenty years and maintains the policy in force; plainly, if he should die during the twentieth year, after the

twentieth annual premium has been paid, and there is paid to the beneficiary only \$1,000, the face of the policy; there is a loss, instead of a gain, because of the transaction.

The loss is sometimes guarded against by adding a return premium or partial return premium feature, of course increasing the premium to cover this. In consequence, if death occurs during the twentieth year, in addition to paying the principal sum to the beneficiary, the company also pays an amount equal to all the premiums received or one-half or one-third of the premiums received, as the case may be.

Another sort of modification which does not really make the insurance a new kind, is when a proportion of each premium is not paid in cash but is charged against the policy as a loan. This gives a lower cash premium, of course. The plan is very old, being in fact the guise under which life insurance by mutual companies first became popular in the United States. It was attended by two features which made the results unsatisfactory, viz., an interest charge far in excess of the rate used by the company in computing its premiums and reserves, and an estimate that annual dividends would wipe out the loans, which estimate was not realised. The result was increasing cash cost because of the interest, and decreasing insurance because of the loans. Notwithstanding which objections, the plan was

long popular and many strong companies were built up by its use.

In recent years the same principle in other forms has been made use of, both in Great Britain and in this country. In Great Britain the "discounted bonus" policy has been introduced. Under its provisions the company reduces the annual premium by the amount of the value of its expected bonus—usually declared every five years—commuted into an annual cash payment. Should the company be unable to maintain its rate of bonus, there must be a readjustment, usually either by increasing the premium or by diminishing the sum insured.

In the United States, under the name "advanced dividend," the idea is utilised as follows: A certain portion of each premium during a deferred dividend period is advanced by the company and is charged against the policy as a loan; interest is accumulated against this at a rate stipulated and agreed upon; in event of the death of the insured during the period this accumulation is cancelled by a return premium feature, and, of course, if the premium loans are not availed of, there is paid, in addition to the sum insured, the amount of this premium return; at the end of the deferred dividend period the accumulated surplus is applied to wipe out the indebtedness or to reduce it, if not sufficient to pay it in full.

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It should be borne in mind that the policies which contain this privilege do not otherwise differ from other forms, except in the return premium feature. It may be applied to life, limited-payment life or endowment policies.

In considering policies with this loan feature a most important thing that ought never to be neglected is to ascertain at what rate of interest the loan accumulates. If at a rate exceeding materially, if at all, the rate used by the company in its computations, and especially if at a rate higher than is secured on other investments, the holders of these policies may not be fairly treated.

The following forms of annuities are offered by American companies:

Immediate life annuities, payable at the end of each year, half-year or quarter, during the annuitant's lifetime. Rates for these are quoted both as single premiums for an annuity of \$100 per annum, \$50 per half-year or \$25 per quarter, and as amounts of annuity, payable annually, semi-annually or quarterly, which \$1,000 will purchase. The single premiums for female annuitants are higher than for males, the experience having been that female annuitants average to live longer.

These annuities are usually not complete or apportionable, *i. e.*, the accrued portion of the annuity is not payable in case the annuitant dies

before completing a year, half-year or quarter, as the case may be. Such is required by the laws of Great Britain, but, of course, a higher premium is charged.

The premiums for annuities are computed according to mortality tables, deduced from experience with annuitants, and usually $3\frac{1}{2}$ per cent. interest. The mortality is lower than among insured lives. No participation in the surplus is given.

Immediate joint life annuities, payable yearly, half-yearly or quarterly during the joint lives of two or more persons. These cease upon the death of the first of the joint annuitants.

Immediate last survivor annuities, payable yearly, half-yearly or quarterly so long as any one of the annuities survives.

Deferred life annuities, *i. e.*, beginning after a term of years. This may be applied to one life, joint life or last survivor annuities; but is usually applied to the first-named and only as an additional feature in connection with a life insurance policy. These may be issued with return of premiums in event of death during the period before the annuity commences, or without such provision or with such provision, including also the return of the remainder of the premiums paid, if death occurs after the annuities commence, but before the annuities received equal the premiums paid.

Survivorship annuities, already described in connection with continuous instalment life insurance. These are usually paid for by annual premiums during the life insured, and such policies are issued both with return of premiums if the beneficiary dies first or without return, the premium for the former being the larger, of course.

Increasing life annuities, *i. e.*, starting at a given payment and the payment increasing each year the annuitant survives, usually at a fixed amount per annum or by arithmetical progression. This form has usually been utilised only in connection with life insurance policies as follows: An annual cash payment to the policyholder equal to 3 per cent. upon all premiums previously paid. Suppose the premium is \$100 per annum, this would call for a payment of \$3.00 the first year, \$6.00 the second, etc., and after thirty-three years these payments would exceed the annual premium and yield the insured an income each year of \$2.00 the thirty-fourth year, \$5.00 the thirty-fifth, etc.

The following forms of life insurance or annuities have also been offered, *viz.*:

Life and annuity, giving life insurance to age 70 and premiums ceasing at age 70, when an option is given to take \$1,000 paid-up insurance, \$100 life annuity, or \$500 paid-up insurance and \$50 life annuity. The point is that at age 70 a

life annuity of \$100 and a paid-up life insurance of \$1,000 are nearly of equal value.

Widows' annuity, giving an annuity to the widow during her widowhood (in event of her death, to their children during their minority), in event of the death of the husband, an annuity for ten years being paid in any case. This has so far been offered only by assessment societies. To compute proper rates of premium for all the contingencies, so as to satisfy the requirements of the legal reserve laws, would not be easy.

A contract to deliver fractional paid-up policies upon the payment of each premium. By one of the largest companies this is applied to a guaranteed interest bond only, and the first paid-up policy is delivered only upon the payment of the second annual premium, the second upon payment of the third annual premium, etc., two paid-up policies being delivered upon payment of the twentieth annual premium. Thus the company holds itself in position to forfeit one premium upon discontinuance. Another company applies this to limited premium policies, actually delivering one proportionate, fractional paid-up policy upon the payment of each premium. Under both plans it is agreed that in event of the death of the insured all the paid-up policies are to be delivered at once.

CHAPTER XXI

REBATING, LOCAL BOARDS AND STOCK WITH POLICIES

THERE are inducements offered to purchasers of life insurance at times which do not fairly come within the designation "varieties of policies," but to which, notwithstanding, a place in this series of articles is due on the ground of their importance. They may be denominated "schemes" as the title, which is all-embracing, and not as a mere epithet of opprobrium. For they are of very unequal merit and some of them deserve respectful attention, though all should be examined with great caution.

An offer of a rebate off the first year's premium is easily first in importance of these schemes. It is very seductive, too, either when one is first approached in this way or when he is approached with such an offer that a single year's protection for a large amount will cost but a trifle.

The rebate made its appearance, as we have seen already, in the form of a commission or "tip" to the applicant's attorney, even before

life insurance agents were known. It was quite as willingly given to the applicant himself when he was wise enough to call for it.

Later, when agents came into the arena, the rebate became a convenient weapon by means of which to enlist the influential men in the community—nearly always looking for the main chance and an advantage over their neighbours. It was moderate in amount because the agent's commissions were moderate.

When the pressure for higher and higher brokerages caused the American companies to exceed the provision for expenses in the first year's premiums in its payment of brokerages, the largest American company undertook to head off this stroke of enterprise by openly offering a rebate to every applicant. It raised a storm and was the subject of legislative investigation and interference. The following are some of the company's explanations and attempts at justification:

“When the number of lapses and surrenders grew to such proportions as to make it evident that the loss of contributing members must some day be repaired by the introduction of new lives at more than average cost, a fund was created from the retiring members, to which the existing policyholders have not contributed, and which is now made available, and will be used for the purpose intended. The money contrib-

uted by the existing members is, consequently, not taxed for the benefit of new entrants, as might otherwise be supposed, and the foresight of the management is made apparent. The benefit to existing members will be in the enhanced addition to their dividends resulting from the infusion of new lives and the corresponding diminution of the average death rate thereby. In presenting this matter to the public do not fall into the error of representing it as a discount, rebate or dividend in advance. No dividend is ever declared or paid by the company in advance. No charge is made against the policy or policyholder for any part of the premium, and the whole of it is cash to the company without really doing so. * * * But for the constant introduction of new lives, as above stated, the dividends must necessarily decrease. It is, therefore, to the pecuniary interest of the existing policyholders, that their money should be used, within reasonable limit, for the constant procurement of new business. How this should be done is, however, a question in which they are deeply interested. Two methods have been followed by sound and trustworthy companies. One is to pay large commissions to agents to stimulate them to greater activity in soliciting. The other is to allow a portion of the premium to the applicant as an inducement to present himself for insurance. Both plans in combina-

tion have been also used in life insurance, and in fire insurance the allowance of a rebate to the insured is almost universal. * * * The Mutual Life Insurance Company of New York has always opposed the payment of large commissions to agents, and if it has not hitherto made use of its financial strength to offer any inducements to the insurant it has not been because there was any moral or prudential objection, but because the appreciation of the public sufficed without it."

In consequence of the outcry the company desisted, but, instead of thus lowering the first premium, it proceeded to reduce both first and renewal premiums, hoping thus to divert the purchasers of life insurance from high premium policies, with a high expense rate and great expectations as to deferred dividends, to low premiums, with low expenses and reasonable returns. The experiment was not wholly successful, possibly because not persisted in long enough.

As, by reason of the returns being much lower than had been estimated, the popularity of deferred dividend policies with harsh forfeiture conditions began to wane, and as the race for new business became more strenuous, commissions were forced up and up, until rebating of quite another sort became common.

It was—and sometimes yet is—of the follow-

ing character: The company offers a very large bonus for a certain amount of new business. If the bonus is earned the profit to the agent on all the business effected is so much increased that he can afford, if necessary, to pay very large commissions for much of the business—and quite as well and with more effect, to give the same commissions to the insured as a rebate. This results in a great deal of life insurance being sold at certain times for premiums which are merely nominal.

There is compensation in all things. So far as the companies are concerned which enable these rebates to be offered, the purchaser of life insurance will discover, if he looks up the relative rates of premium in them and in others which pay too small a commission to admit of it, and the dividends paid and surrender values promised by both classes, that he would be robbed if he failed to get the rebate and that, if he does get it, he will give more than a *quid pro quo* in many ways.

In order to avoid curing this evil by the only effectual method, the abandonment of high brokerage commissions and bonuses, companies and agents have induced Legislatures to pass laws prohibiting rebating, which they call “discriminating between persons of the same age, class and expectancy of life.” These laws have in the main been dead letter statutes. Only rival

agents or companies are interested in their enforcement. They seldom take action. The only sentiment the average policyholder harbours when he learns that his neighbour has secured a rebate is anger that he himself failed to get one.

Lower premiums and better returns are almost inevitably found in companies which do not give their agents commissions high enough to enable them to rebate.

An ingenious method of appearing to rebate, without really doing so, was once put out by a leading company and is yet used by two or three small companies. The company offered a premium for the first two years, combined, much smaller than the sum of two annual premiums. The surrender values were correspondingly reduced, however, and there was really no advantage at all.

Another scheme is known as the "board plan." It consists in placing a large amount of insurance with persons, as influential as possible, who are appointed members of "advisory boards," and among whom a certain portion of the premiums received is divided annually as a commission. The purpose is, first of all, to secure as much business as possible, as expeditiously as possible, from the board members themselves, and then to utilise their introductions and recommendations to obtain other members.

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On this plan new business has been secured, in point of fact, at a lower outlay than without resort to it. Theoretically, it is meritorious. The "board" charges are often less than renewal commissions. If the board members really continued to assist the company, if their expectations were within reason and if the work were followed up with enterprise and the scheme faithfully and fairly carried out, it might be unobjectionable.

Instead, the thing is accomplished in almost all cases by excessive estimate of possible results and by uniting with these estimates illustrations of policy results, so that premium payment is assumed on the basis of reliance on these estimates. When disappointed, the board members become dissatisfied and, instead of aiding the company, they discredit it and refuse to recommend its policies. The company is thus prevented from following up the canvass, if, indeed, it ever had such a notion. In consequence, after a time, the payment of the commissions to the board becomes onerous and attempts are made to get rid of it or to put a narrow construction upon the contract.

The first application of the "board plan" on a large scale was about thirty years ago. A very large growth in a very short time was the result. The first superintendent of insurance for New York, then out of office and practising as a con-

sulting actuary, was much impressed by the achievements of the company through this scheme. In a pamphlet printed in 1871 he showed that in only two years and six months it had resulted in a business in force of over \$46,000,000. This is a record still unrivalled; yet within seven years this company was forced out of business by the utter breakdown of its own system.

When the renaissance of new life insurance companies set in, from 1890 to 1895, this scheme was revived. There have been some failures under it and several failures to reap the expected harvest, either for company or for board members, but some companies have apparently overcome the obstacles and achieved success which bids fair to be permanent.

Partly the complaints of disappointed board members, but mainly the outcry of competing agents and companies, have caused some State commissioners to look upon the "board plan" as a thing to be suppressed. Accordingly, the scheme has in some States been condemned as an infraction of the anti-discrimination law. This has, however, been so doubtful that in one State the Attorney-General gave his opinion one way and his successor reversed it.

The following is a specimen of the absurd estimates:

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Year.	Amount of Policy \$5,000 Guar. Loan Value.	Premium.	Contract Earnings Estimated.	Net Cost.	Cash Excess of Premium.
1		130.30		130.30	
2		130.30	5.60	124.70	
3	125	130.30	12.00	118.30	
4	190	130.30	21.08	109.22	
5	260	130.30	33.13	97.17	
6	325	130.30	48.80	81.50	
7	400	130.30	67.74	62.56	
8	470	130.30	88.41	41.89	
9	545	130.30	112.22	18.08	
10	625	130.30	138.10		7.80
11	705	130.30	166.00		35.70
12	785	130.30	162.95		32.65
13	870	130.30	160.55		30.25
14	955	130.30	157.91		27.61
15	1040	130.30	155.07		24.77
16	1130	130.30	152.26		21.96
17	1220	130.30	149.66		19.36
18	1310	130.30	145.71		15.41
19	1405	130.30	144.36		14.06
20	1500	130.30	143.30		13.00
Totals...		2606.00	2064.83	783.72	242.57

Settlement options at end of twenty years:

1	Cash value.....	\$3295.00
	Consisting of cash guaranteed.....	1500.00
	Surplus estimated.....	1795.00
2	Equivalent in paid-up policy.....	5825.00

Another scheme which has been employed within a few years past, only, is to offer stock in the company for sale in connection with its policies. Obviously, this is a thing which can best be done by a new or young company, or, in any event, in introducing a company in a given State or vicinity. If a small amount of stock were sold to each purchaser of a policy as a permanent practice the stock returns would necessarily be small and the speculation unattractive.

No argument is required to show that it is to the advantage of the new and small company, and, indeed, to any company, in organising a new field to enlist as many of the most influential men as possible. To secure them as stockholders is the most effectual way to accomplish this and also the fairest, for they then pay directly and in full for the interest which they possess. With their money actually invested in the stock of the company, they are openly concerned in its welfare and success and can with perfect propriety invite their friends and acquaintances to patronise a company in which they are interested.

It has been found that the agents of a new and small company can earn a better income at a lower rate of commission when introducing the company into a new field if the stock is offered with the policies. By doing this, therefore, the

company secures increased capital and valuable influences in its behalf, not only without expending more for commissions upon new premiums, but actually with greater economy. With the allotment of stock safely disposed of, if the work has been done well, there should be an abiding aid to secure new business in these localities in the persistent interest of these stockholders in the work.

Stock in agency companies or in an investment company which promotes the life insurance company is also sometimes offered in a similar manner. The purpose in such case is to secure money to pay current expenses and to develop the business.

There is, of course, no legal impropriety in this sale of stock and policies together, whether it be stock in the life insurance company or in an agency or investment company. Precisely how it will work out is a question which will doubtless be answered differently in different companies.

The following is a specimen of grossly improper estimates of dividend returns upon stock, united also, it will be noted, with illustrations of policy results:

Guarantees and estimates on a \$10,000 ordinary life policy, with stock, on a life, age 47, twenty-year settlement:

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\$416.10—premium.

20—years.

\$8,322.00—paid in on policy.

\$460.00—paid in on stock.

\$8,782.00—total paid in to company.

Value in cash:

Guaranteed value of policy.....	\$4,370.00
Dividend value of policy.....	4,990.00
Estimated value of stock.....	10,000.00
Dividend value of stock.....	2,000.00

Total value of policy and stock and
insurance for twenty years.....\$21,360.00

What has made the most trouble in connection with the "board plan" and this plan of selling stock with policies, has been the making of extravagant estimates of probable profits. In both cases anything like reliable estimates are quite impossible. All that are given are practically sure to be exaggerated. Honesty of management calls for a total suppression of these estimates, the fact being that nothing about it can be foretold.

CHAPTER XXII

“DATING BACK” SCHEMES AND INVESTMENT BONDS

ALL of the schemes so far mentioned, it will be observed, have been used to secure for the companies the patronage and support of men who are deemed influential in the community. The rebate was the oldest of them, freely resorted to by the larger and more enterprising of the companies. Some of these also made use of the “board plan,” when they were younger and smaller. The scheme of local boards and the scheme of selling stock with policies have, however, been the resort of new and small companies. Each of them is susceptible of great abuses, rebating of degeneration into giving business away, and the others of the abuse of extravagant estimates, amounting to fraudulent misrepresentation; but, as competitive business devices, there is little to say against any of them when not abused, and in point of fact legislative or departmental interference with them has originated in practically every case with rival companies or agents who have found the competitive advantage thus transferred to other

companies. When purchasers of life insurance from a company discover that others have received a rebate, their resentment is solely that they did not also get in “on the ground floor,” and so, too, as to the “board plan.” In the case of stock purchases there is not even this to complain about; the stock interest was bought and paid for.

Two schemes remain to be considered which are wholly and *per se* vicious, and one of which is unconscionable and even fraudulent in its essential nature.

The first is the “dating back” scheme. The company offers an alluring proposition of the following nature: A twenty payment life policy, dated back seven years; a certain amount, less than the seven premiums would amount to, but much more than the reserve that would have been accumulated, to be paid as commutation of the forborne premiums; instead of being paid, this may stand against the policy, accumulating at interest, usually at a higher rate than is used in computing the net premiums and reserves; according to some policies, in event of death before the completion of the payment period, this charge is cancelled by a return premium feature, for which a small extra premium is collected; an illustration of results on the basis of what other companies have accumulated during an entire period of twenty years.

Were this scheme otherwise fair, *i. e.*, were the charge the exact amount of the reserve, the interest the rate used in computing reserves and the illustration based on thirteen years' accumulation, still it would not be advantageous to the insured, who would be getting no better bargain than by the usual forms. The larger charge than the reserve enables the company to use the next two or three annual premiums for expenses and current claims, thus really reducing the accumulation term to eleven or even to ten years; the higher interest charged is by so much to the insured's disadvantage, and the use of these estimates or illustrations is a fraud of itself.

The scheme was earliest employed in transferring the members of a reorganised society from the assessment plan to level premium plans. By means of it the management succeeded in getting nearly all the accumulations of the assessment policies, plus the first two or three years' premiums on the substituted policies, as paid, into the surplus account and available for expenses, remuneration of officers, etc.

It proved so delusive and so attractive a dodge that it was taken up by several other concerns, for the most part with headquarters in Indiana, and has been employed freely to secure new applications for insurance. The following, much resembling the stories of discretionary,

pool rascals and others, is a sample of the figures given to sell this scheme:

Present age 40, policy written as of age	
33 years.....	\$5,000.00
Annual premium age 33, \$167.00 for	
seven years equal.....	1,169.00
If policy had been taken seven years	
ago the interest, 5 per cent., equals..	250.00
The applicant has, therefore, retained	
in his own possession.....	1,419.00
This company accepts a policy loan	
agreement in payment of the first	
seven annual premiums for.....	797.50
The amount saved on day of making	
application	621.50
A twenty payment life policy at age 40	
would cost \$197.00 per year for twenty	
years, amounting to a total cost of	3,940.00
At age 33 the annual premium is	
\$167.00, and this amount paid for	
thirteen years equals.....	2,171.00
Guaranteed saving in cost, therefore,	
being	1,760.00
If applicant so desires the company	
will issue a policy guaranteeing to	
pay the amount of the “Policy Loan	
Agreement,” with interest thereon,	
should death occur within thirteen	
years	250.36

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The net guaranteed saving then
amounting to.....\$1,518.62

OPTIONS THIRTEEN YEARS FROM DATE.

Guaranteed reserve on deposit with
State of Indiana.....\$2,579.75
Draw amount of surplus accumulations
in cash estimated after paying loan
\$797.50 and interest to be..... 634.81

Total estimated cash value.....\$3,214.50

SECOND OPTION.

Draw surplus as above..... \$634.81
Receive paid-up policy..... 5,000.00

Total cash surplus and paid-up insur-
ance\$5,634.81

The preliminary term device was introduced in the United States by a regular company in 1894. The company had its headquarters in Iowa. The policies had scarcely been printed when a life insurance agent living in Iowa devised a scheme as follows:

A ten year investment, guaranteed value..\$300
Estimated surplus..... 300

Total returns.....\$600

Cost, \$2.50 per month.

Insurance, \$150 if death occurs in first five years; \$300 if in second five years.

All the first year's premium for term insurance for one year, *i. e.*, for current expense and risk.

Out of each premium for the subsequent nine years, reserve enough to accumulate at 4 per cent., annually compounded, to \$300 at end of period. This called for about \$2.30 per month.

Remainder of each premium for the subsequent nine years, for current expense and risk.

The first year's premium and the margin in the subsequent premiums were by the contract made the sole property of the stockholders.

This contract was plainly unconscionable for two reasons. First, because it exacted a premium for one year term insurance at the rate of \$30 for \$150 insurance or \$100 for \$500 insurance for a single year. Second, because almost all the sources of profit in the subsequent premiums above 4 per cent. guaranteed, which barely caused the policyholder to realise the amount he paid in premiums, were taken from the insured by the agreement, while he was privately assured that there would be a large gain.

It was fraudulent, also, because of the outrageous misrepresentations, *viz.*, of a profit of 100 per cent., *i. e.*, \$300 on a \$300 contract, or \$1,000 on a \$1,000 contract, in ten years. Had

all the profits been reserved to the insured, according to experience already well known to insurance men before this scheme was introduced, the gains would not have been more than one-fifth the estimate. Manifestly, too, the scheme could not have been sold without excessive estimates.

This concern was not molested for a long time and prospered exceedingly, the stockholders reaping large returns. Other companies were organised on similar lines, excepting that they made the insurance only 20 per cent. more than the premiums paid, thereby charging for one year's insurance at the rate of \$100 for \$120 protection.

Later the estimates were reduced to the "conservative" proportions of \$200 on a \$300 contract. The gains could not have exceeded \$50 to \$75 at the most, in point of fact.

For years these companies continued undisturbed. Prominent and influential men were connected with the first of them, men of even greater social and political distinction with the second, which had for its president no less a figure than the then Governor of Iowa, afterward Secretary of the Treasury of the United States. Scandal began to brew. Rumour had it that the purpose of the Attorney-General of Iowa to suppress these frauds was thwarted by the Governor-president. Later and before his

selection for the greater office, he resigned as president of the company, and not long afterwards an investigation by the insurance department of a neighbouring State pricked the bubble. Then both companies reinsured and retired their stock, the managers escaping without punishment and with the spoils. Iowa by new laws and rulings purged herself so that now such things cannot be done there and many other States closed their doors to it. A few yet indulgently permit this business to be carried on by life insurance concerns, however, and both because of that and also because a like business is now being promoted by a so-called banking corporation, we are by no means out of danger. Recently this plague has extended to Great Britain and is raging there, much to the discomfiture of Britons, who had serene confidence in the sanity and prudence of their countrymen.

CHAPTER XXIII

LIFE INSURANCE AS AN INVESTMENT

THE gross impropriety, amounting to fraud, of the so-called "investment bonds," issued first by certain Iowa companies, has been pointed out; but as a preparation for considering life insurance as an investment and also because these contracts were held forth as desirable on investment grounds alone, it will be worth while to analyse them more thoroughly. The main features were:

Benefits to the insured, life insurance of \$500 the first five years and \$1,000 the second five and the return of \$1,000 guaranteed—just the sum paid in—plus earnings, at the end of ten years.

The benefits to stockholders, including provision for expense and mortuary cost, were the whole of the first year's premium and about 7 per cent. from each subsequent premium.

The endowment benefit at the end of ten years, *i. e.*, the return of the premiums paid, represents all that the investment yields, if the

funds earn 4 per cent. per annum and no more. That is, on that basis, the insured exchanges for the insurance furnished, the entire interest upon his payments. In practice, the participation because of interest over 4 per cent. and forfeitures and surrender charges, would yield some return, thus reducing the cost of the insurance by so much.

The height of absurdity was attained in connection with these contracts, when only 120 per cent. of the premiums paid was the amount payable at death. In effect the policyholder was giving up the interest on his investment in exchange for this merely nominal protection.

The incidence of the expense and profit provisions in the contracts was an offence against common honesty, for on these ten-year investment undertakings it amounted to permitting the company to apply the first moneys received, as its profits, before it had performed its engagement at all.

But, had the incidence been fair and had the insurance been the face of the policy, instead of a less sum for much of the period, the amount of the provision would have been unfair at most ages. We have seen that the usual loading on ten-year endowment premiums seems to be unfair, especially at the younger ages.

As compared with investments which do not also embrace life insurance, investments in life

insurance policies must always be at a disadvantage, unless a fair allowance is made for the value of the protection. This is often lost sight of, and, in fact, such a showing is frequently made of the results of endowment policies as may cause them to be considered as investments pure and simple. Sometimes the insurance is spoken of as being "thrown in"; usually the investment returns are cited "besides the insurance." All this is unfortunate, both because it creates a wholly erroneous impression and also because it cheapens in men's estimation the value of life insurance.

These returns of from 3 per cent., annually compounded to perhaps 4 per cent., "besides the insurance," are of the past. They belong to a period when the companies realised nearer 6 per cent. than 4 per cent., as at present. Also to a period when forfeitures were acquiesced in by the insured and yielded large apparent gains. The future holds forth no such promises; if when 6 per cent. was earned, only 4 per cent. or less could be earned net, "besides the insurance," when only 4 per cent. or less is earned, net investment returns will be 2 per cent. or less.

The tontine delusion, *i. e.*, that large gains would be reaped from forfeitures, fostered the view that life insurance policies might be desirable investments for investment's sake, not

considering the insurance at all. It even caused life and limited payment life policies to be carried for investment purposes. And the desire for accumulation and its benefits has kept these policies in demand, long after these expectations have been disappointed.

In these days comparatively few statements of results are given without at least referring to the value or the cost of the life insurance. This is encouraging, but it does not go far enough.

The fact is that the investment policies of the companies, including even the limited-payment life policies, could be and should be better investment contracts than they are. For in nearly every case it will be found that they are handicapped by an unduly large loading upon the premiums.

This is due to the theory, a very practical theory at that, that the loading, in order to meet the requirements of the agency system, must be proportionate to the net premium, or nearly so, no matter if the net premium has been increased by a large pure investment addition. Managers of life insurance companies who would roundly condemn and even ridicule a pure investment contract, which provided for deducting 20 per cent. from the principal for expenses and attempting to earn full returns upon the whole by putting 80 per cent. of it out at interest, will add

to the fair premium for life insurance, including its expense provision, a pure endowment premium to mature the policy in a fixed number of years and will increase that extra premium paid for investment only by an expense charge equal to or exceeding 25 per cent.

It seems reasonable, upon careful examination, to load a life insurance premium with a sufficient provision for expenses to enable it to be sold and the premiums to be collected, as well as for expenses of management. Life insurance is needed by thousands who would never avail themselves of it, were it not for the agents who urge its sale. It is as justifiable to use 10 per cent. or 15 per cent. of the premiums, or even more if there are weekly collections, to defray the cost of finding patrons for life insurance, as to add to the real cost of coal the expense of selling and delivering it, whether by the ton or the basket. That is, because the benefit must be paid for. The price may be high, but the thing is worth it and cannot be furnished for less.

An investment stands upon a different footing. If handicapped in this manner, it ceases to be an investment at all, and so can be sold only by false representations of its real character. For that can hardly be called an investment which returns less than is paid or which, after years elapse, barely returns what has been paid. Stated in this bald fashion, such a proposal

would not be attractive to anybody. It can be marketed, therefore, only by pretending that in some subtle way, not easily comprehended, the deductions from the principal are going to be made good out of the earnings and a round profit be realised on the entire payments.

When such contracts are offered by financial companies, it is generally understood that they are not reputable concerns. Banks and trust companies of good standing will not countenance the practice. The so-called "bond investment" or "bond guaranty" companies are recognised to be engaged in piracy instead of business. Calling it endowment insurance does not alter the essential nature of the transaction.

To recapitulate, a life insurance policy, at the best, can be compared as an investment with other investments, not accompanied with life insurance, only when a proper allowance is made for the cost of the life insurance.

And, even on that basis, it cannot appear favourably in the comparison if the investment policy's premium bears a larger loading for expenses per \$1,000 insured than the term premium of the company.

Thus, let us consider some actual results of policies in a leading company. An endowment insurance maturing in fifteen years, with a dividend period also of fifteen years, issued at age 35 at an annual premium of \$65.99, yielded a

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cash result, including surplus, of \$1,339.62. This amounted to a return of a little more than $3\frac{1}{2}$ per cent. interest, annually compounded; upon the entire premiums, making no allowance for the value of the life insurance. The protection the first year was \$1,000, less \$47.02 reserve, equals \$952.98; the protection the last year was \$339.62, less than nothing, *i. e.*, there would have been a loss of \$1,339.62, less \$1,000, which sum only would have paid at death. The average protection, therefore, has been only $\$952.98 - \$339.62 \div 2 = \$613.36 \div 2 = \306.68 .

This is approximate only, but will answer to give an idea of the benefits. A non-participating fifteen-year term insurance for \$1,000 in the same company would have cost at that age \$15.41 per annum; or, let us say, \$4.72 for an average insurance of \$306.68. Deducting this from the annual premium of the endowment insurance, \$65.99, we have net an average annual investment of \$61.27. Upon this the total cash result of \$1,339.62 returned interest, annually compounded, at nearly 4 per cent. per annum.

The same company on an ordinary life policy for \$1,000, with fifteen-year dividend period, returned \$414.60 total cash result, in return for premiums of \$26.49 per annum. This was scarcely more than the premiums paid. The protection the first year may be taken as \$1,000, less \$11.48 reserve, equals \$988.52, and the last year

\$1,000, less \$414.60, equals \$585.40. The average insurance approximates $\$988.52 + \$585.20 \div 2 = \$1,573.92 \div 2 = \786.96 . On the basis of the same term rate, this was worth \$12.13 per annum, leaving \$14.36 of the premium paid in for investment purposes. Upon this sum annually invested the cash return of \$414.60 yielded interest annually compounded at nearly 10 per cent. per annum—a large part of which was due, of course, to the fact that the insurance really cost less than the term rate.

One reason for the difference in yield is that the endowment insurance as an investment was handicapped with a loading of \$12.27 per \$1,000 to only \$6.62 for the life policy, although the average protection under the former was \$306.68, while under the latter it was \$786.96.

Of all the life insurance companies doing business in the United States, scarcely a half dozen have recognised this and have adjusted their rates, wholly or in large part, conformably with reason and common sense.

The foregoing illustrations are of the most favourable results of such policies; in more than a few instances companies have treated the earnings of these policies as surplus to be dealt with as the company desires and have dissipated it in excessive expenditure, instead of accumulating it for the policyholders. In such case the pre-

tence that it is a desirable investment is tantamount to a fraud.

Notwithstanding which facts, a considerable demand has been created for life insurance policies as investments. In consequence of which it behooves the companies as a matter of fairness both to make it plain that at the best the investment is good, only in case the value of the protection is considered, and then to render the handicap as little as possible by loading endowment and limited payment life premiums justly.

This means, also, that one of the chief causes of this demand must be eliminated, viz., the stimulation of "investment insurance" by offering higher commissions for it. Such commissions can be given, only by rendering the investment by so much less advantageous. In the largest and most representative life insurance company in the British empire the payment of a flat commission of so much per \$1,000 of insurance, regardless of plan and age, has resulted in much the larger part of the business being whole life policies, a fair proportion old age provisions by means of long term endowment insurances and very few limited payment life policies.

The vast disproportion of limited payment and endowment insurance policies in American companies is due to peculiar causes that have been at work in this country. First of all should be mentioned the great disappointment in an-

nual dividends before the 70's. Then the encouragement of the view that there would be immense gain upon tontine policies because of the lapses. The larger commissions that were paid upon these forms also helped, as did the cheap rates for investment insurance, which deferred dividend plans rendered possible, as twenty-payment life or even whole life rates.

But the crowning cause is outside of life insurance. Our great country wants facilities for caring for the savings of the people. In a few eastern States we have excellent mutual savings banks. In the most of the States stupidity of legislators and people and cupidity of private interests have combined to prohibit their organisation. Stock savings banks have been proverbially of the "pluck me" sort and also frequently unsafe. Trust companies have bid better rates in recent years, using the money in speculations; that they will do so well in times of stress is unlikely. In any event, they do not reach the masses of the people in outlying towns and villages. Building and loan associations have aided in this regard in some localities, but when they presented a probability of giving relief in a large way through branches, schemers soon found this a promising field for exploitation and accordingly ruined it both for themselves and others.

Neither have our people learned to invest sav-

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ings in high-class bonds, as have the frugal people of France, for instance. Such bonds are not issued in denominations small enough. Bids are not invited which give to the highest bidder bonds to the amount of his bid, but, instead, "all or none" bids by underwriters are favoured. The present comptroller of New York, despising the day of small things and impatient that a people could not learn this lesson in a year or so, recently got legislative authority for "all or none" bids and small bidders are now disappearing there, also, which marks the close, perhaps, of a most valuable and promising attempt to aid our people to appreciate such investments.

Under these conditions, pure protection, though on mistaken plans, having passed in large degree to the assessment associations and fraternal societies, investment life insurance has grown into a great national institution, calling at this time most loudly for more careful adjustment of loading and charges, so as to fulfil so far as possible all reasonable expectations, and also for a complete clearing away of the false impression that it is a good investment, not considering the protection at all.

CHAPTER XXIV.

THE IDEAL POLICY

THE prime benefit of a policy of life insurance is the insurance. In order that this benefit may be as valuable as possible, it is necessary that the life insurance be :

Safe.—This calls for adequate rates and the maintenance of reserves from the premiums, sufficient to assure the payment of death-claims as they accrue.

Certain.—Besides safety, this requires freedom from conditions and restrictions. It also requires that the premium shall not increase until the burden is unendurable, as it would upon a plan which increases the premium with the age as the cost increases.

For the whole period of life.—It is true that in exceptional cases insurance for a short term is desirable, but only when the need for the insurance expires with the term. This applies to endowment assurances, as well. Much the larger number of the holders of term and endowment policies purchase new policies at the expiration

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of the term and those who are then uninsurable are bitterly disappointed. The fact that under endowment policies they have accumulated the sum insured does not deceive all of them; had they carried life policies and invested their savings elsewhere, they would now have both investment and insurance.

Convenient as to premium payment.—This does not mean convenient in the sense of small premiums in the early years, involving in consequence very large premiums in later years; but merely that the form and amount be convenient. Undoubtedly, level premiums are more convenient, taking into account the whole period of the insurance, than increasing premiums, and when the insured has provided all the protection he requires and can afford to prepay its cost in one premium or in five, ten, fifteen or twenty annual premiums, that will be more convenient in many cases.

Liberal as to terms.—An illiberal contract, holding one up to the strict letter as to time or mode of payment, cannot be the most beneficial, for there are many exigencies that might cause the policy to be forfeited and the insurance to be lost. The ideal policy, therefore, will contain liberal non-forfeiture provisions, sustaining the policy with all its benefits so long as its funds will enable this.

Convertible.—To secure the greatest benefits

it is necessary that the policy be freely convertible into cash, into paid-up insurance for life for a fractional amount, or for a limited term for the full amount, or into other forms of life policies, more convenient for the insured under his changed conditions.

Negotiable as security.—The maintenance of the insurance in the interest of the beneficiaries, their very support at the present time, and indeed the entire fortune and prospects of the family sometimes depend upon the ability of the policyholder to secure a loan upon his policies. Especially is this true when the title to the policy is in the beneficiary and the insured has been ruined financially by the pressing demands of importunate creditors.

Exempt from claims of creditors.—The fraternal beneficiary laws usually exempt policies in those societies and all proceeds thereof from seizure by any legal or equitable process for the benefit of creditors of the insured or the beneficiary. This may appear extreme, but when it is remembered that the protection is bought for others at the sacrifice of one's own present or future enjoyment, it must be recognised that the money is impressed with a most sacred trust. The laws applying to policies in the regular companies do not go so far, but they usually do protect the policies if made payable to a wife or child against the creditors of the insured.

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Subject to right to change the beneficiary.—Life insurance premiums are nearly always paid by the insured and not by the beneficiary. In order that the former may be able to make the best use of the policy paid for by him it is necessary that he be able to change the beneficiary at will. It is also fair and just. This is recognised also in the fraternal beneficiary laws, which also provide for this right to change, of course without incurring a loss of the exemption from demands of creditors. The status as to creditors, of policies in regular companies, containing this privilege, is doubtful and calls for legislation.

With clearly stipulated rights as to participation.—The evils of these days loudly call for strict accounting to policyholders.

With frequent accounting for surplus.—While there may be every reason to permit surplus to accumulate, rather than to withdraw or to apply the same, the proof is conclusive that it is to the policyholder's interest that his portion of surplus be frequently ascertained and accounted for.

With liberal privileges of applying surplus.—The value of a policy is much enhanced if the surplus may be withdrawn, accumulated or applied to increase the insurance, to diminish the number or the amount of premiums payable in future, or to mature or to hasten maturity as an endowment.

With privilege of payment of proceeds in instalments or annuities.—The obvious purpose of life insurance is to indemnify for loss of benefits that were accruing or would accrue by the insured's survival. These benefits are usually of the nature of financial support currently provided and accompanied by care or oversight. A lump sum very imperfectly indemnifies even the financial loss and substitutes for the care the temptation of control over a comparatively large sum which might easily be wasted soon—and often is.

With a fair loading of the premium for expenses.—Manifestly the ideal policy will not be one in which the loading is excessive in amount or unfairly distributed between the first and subsequent premiums, being either excessive or insufficient the first year.

These essential requisites may be recapitulated:

Safe rates and reserves.

Freedom from restrictions.

Protection for whole of life.

Convenient premium payments.

Liberal terms and non-forfeiture.

Surrender and loan privileges.

Exemption from claims of creditors.

Privilege of changing beneficiary.

Clear stipulation for participation.

Frequent accounting for surplus.

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Liberal privileges to apply surplus.

Instalment and annuity options.

With a just loading of the premiums, both as to incidence and amount.

If the company is mutual, a voice in the control of the company is also to be desired.

The foregoing essential requisites do not, however, alone qualify a life insurance policy as ideal, and this for two reasons:

1. It does not provide for the partial losses of the financial value of a life which arise from temporary physical disability, nor the loss, more complete than death itself, because of permanent disability.

2. It does not provide for the sustenance of the insured in old age, but, instead, continues the insurance in force long after the financial value of the life has disappeared.

In other branches of insurance, such as fire insurance, a partial loss or damage is much more frequent than a total loss, and no person would purchase fire insurance which would not become payable for a part at least, unless the property were wholly destroyed. Much less would the insurance be accepted, were it a condition that the insurance should not become payable, even though the value of the property was wholly destroyed, unless the actual substance were consumed. Instead, a total loss may occur, although the material

is not destroyed, if it has been rendered useless.

On the contrary, a policy of life insurance does not become payable, although the whole value of the life has gone out, as in complete paralysis or incurable insanity, but, instead, premiums must be paid and the sum insured is payable only when the death actually takes place. Yet the financial loss by the permanent disability is actually much greater than would be the loss by the death of the insured, for not only is his earning power destroyed, but there is also his support and nursing to be provided.

The average last illness has been variously estimated at from one year to more than two years. In any event often there is a long period of invalidity, accompanied by great hardships for the sufferer and his family and not infrequently by the loss of the life insurance through inability to keep up the premiums.

Both for the purpose of providing against the financial loss through this permanent disability and also for the purpose of rendering it more nearly certain that the life insurance can be kept up until death, the ideal life insurance policy should cover the loss of the financial value of a life through disability.

Some of the life insurance companies furnish protection, when desired, also against perma-

nent disability by means of a provision that part of the sum insured shall be paid upon proof of such disability. Sometimes this is only upon surrender of the policy, in which case the feature may be of doubtful benefit, both because death is probably near and the death benefit surrendered is of greater value than half the sum in hand, and also because it may even happen that this disability benefit is a smaller amount than the reserve upon the life policy. It is also sometimes provided that this total disability benefit shall be a charge against the policy, accumulating at interest and to be deducted at death. This makes it amount to a loan which may or may not be in excess of the reserve value.

The most liberal form this feature has so far taken is that of paying one-half the amount, the insured still continuing the payment of premiums, and the company being bound to pay the other moiety of the sum insured whenever death occurs.

Insurance against loss of time through temporary disability either by sickness or accident, may now be obtained from casualty insurance companies. By a very recent extension of the benefits, disablement by any sickness whatever is now covered. But these policies are subject to the following serious objections:

They are renewable only at the pleasure of the

company, which means that if the insured becomes liable to frequent disablement through failure of health, renewal will not be permitted.

The company has power to vary the premium rates from year to year.

Indemnity for any one disability is limited to a fixed term; in case of sickness to twenty-six weeks.

The premiums contain a large surcharge for expenses, the same commission being paid to agents each year.

Being disconnected from life insurance, of which this form of insurance is essentially a part, the premiums are low enough to enable insurance to be carried beyond the actual value of a man's time, without undue pressure upon his income. This moral hazard is scarcely present at all when life and health insurance are sold together.

In connection with a life insurance policy, it is possible to furnish at a much lower cost, because of lower expense in the payment of commissions, indemnity for the whole course of the disability, renewable without increase of premium and at the option of the insured. Abundant statistics upon which to base these rates are now obtainable.

Life insurance policies embracing these features, in addition to those already referred to, would cover about as follows:

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Life insurance—

\$10,000.

Disability insurance—

Fifty dollars per week, first quarter year of any disability. Thirty dollars per week, second quarter year. Twenty dollars per week thereafter to age 70.

Old age provision—

No premium beyond age 70 (or paid-up by one, five, ten, fifteen or twenty annual premiums).

After age 70 an annuity of \$20 per week for the life of the insured and continuing, in event of his death within ten years, until it has been paid for that full period.

There is often a marked preference for age 65 or even age 60 for the annuity to begin. But the cost is very much more, and the disability insurance under the contract described furnishes a like income if the insured actually becomes disabled before attaining age 70.

The policy which fulfils all these requirements may well displace both the fallacious current cost plans of fraternal societies that have not readjusted their rates on a sound basis, and the trumpery, so-called "investment" plans by which some of the regular companies mislead men. Both of these classes of institutions cause the value of insurance itself to be grossly under-

estimated, whereas, in point of fact, the policy which surrounds a man and his family with the most perfect protection is the ideal life insurance policy.

CHAPTER XXV

IMPAIRED, SUB-STANDARD OR UNDER-AVERAGE LIVES

IN the early years of life insurance lives were accepted without medical examination. The applicant made certain warranties concerning his physical condition, and also usually presented himself before the board for inspection. If he seemed healthy he was accepted.

The rate being redundant, fortunately this course did not result in a catastrophe. But gradually more and more precautions were taken, and a medical inspection was soon called for. This first took the form of a confidential report from the applicant's own medical adviser, but as it was discovered that he called for a fee for the service the companies began to employ physicians of their own choosing, which cost no more and was more satisfactory.

This resulted in many applicants being rejected, the percentage varying from about 10 per cent. to as high as 30 per cent., depending upon the strictness of the company and its willingness, or the contrary, to make special rates

for such as did not come up to the select standard. This was a most serious matter, for all of the rejected applicants were persons who were convinced that they needed life insurance, and to be denied it was in many cases a positive deprivation, robbing a man's declining years of that assurance of the support of his dependents in event of his death, which alone can make the approach of the fell destroyer supportable.

The race of our American companies involved a close competition as to results to policyholders for many years. In consequence they endeavoured to be strict in the selection of risks in order to increase the returns to policyholders. As the severity of the warranty provisions was relaxed, the subjects of inquiry and investigation by the medical examiners were multiplied, until at this time the examination and inquiry blank used by American companies is much the most formidable document of the sort to be found in any country.

It became, also, a fixed rule not to make the company a "graveyard" by accepting under-average lives on any basis, and for years it was a reproach, not relished by an American company, that it accepted lives which other companies had rejected. This condition grew in part out of the autonomy of the companies. It has already been remarked that, unlike the companies of other countries, the American com-

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pany is not managed by its actuary, who is, instead, only a mathematical functionary usually, with prescribed duties. In consequence, the various functions were specialised, much more thoroughly previously than now, and to the medical director was given the sole determination as to the acceptance or rejection of an application. It was very easy for him to determine whether a life came up to a prescribed standard and so to accept or reject. But he was not supplied with alternative standards in many cases, and had the actuary endeavoured to supply them it would have been resented as an impertinent interference. Actuaries were, however, complacently satisfied with their own position and work.

One result of this authority of the medical department was that the medical director was constantly influenced to exercise it strictly by certain rules, and also in every case, or nearly so, to reject if some other company had done so already. The reason for this is not far to seek. If he accepted the life, and death ensued in a short time, especially from the cause indicated in the papers, when the claim came before the committee for approval, the medical department came in for criticism. Neither the medical director nor the committee understood the law of average well and these criticisms were natural, therefore, and were felt to be deserved.

The only mode which our medical departments favoured for taking care of risks that were not found first-class, was by means of endowment policies, though sometimes an extra premium was asked, as to cover special occupation hazard. This mode was defended on the following grounds:

1st. The mortality under endowment policies is lower, owing to the self-selection by applicants, only good risks applying as a rule for such policies.

2d. The premium is high and the company has received more, if death does occur.

3d. The actual insurance or amount at risk diminishes rapidly, owing to the larger reserves.

4th. The policy expires after a definite term of years, so that the risk may be accepted on this plan if the medical director thinks the life "good for so many years."

Every one of these is a fallacy as applied to this problem, which actuaries could easily have shown. It is true that among persons who apply for endowment policies, there is favourable self-selection, but among persons found impaired and forced to accept them or nothing, precisely the opposite obtains. Only those of them who have grave fears as to their condition are willing to pay these high rates usually. By applicants for endowment insurance policies, the high premium is paid for the endowment benefit and

not for life insurance, *i. e.*, to provide for survivors and not to pay death claims, but this is not always nor even usually the point of view of men who are forced to take the high-rate plan. Under the unfair conditions which prevail here, as to loading of endowment premiums, there is, however, what amounts to an extra premium, but this was really applied to the payment of expenses instead of to cover the extra hazard. It is true that the actual amount at risk, above the policy's reserve, more rapidly diminishes; but the mortality provision in the premium diminishes accordingly, and all that is gained by that is that if the actual insurance is carried at a loss, not so much is lost because not so much actual insurance is carried. That is not, however, what was contemplated. If the mortality provision were ample, so that a profit appeared, there would be every reason to desire that as much as possible actual insurance be carried, yielding as much profit as possible. And, also, in that event there could be no occasion for desiring the policy to expire after a given number of years.

This system entailed the greatest hardships upon applicants who did not come up to the standard, with a minimum of advantage to the companies which also refused even such policies to sub-standard lives. As an instance of this hardship, consider a life at 30 applying for ordi-

nary life insurance, with a premium of, say, \$116.50 for \$5,000, and offered instead \$1,000 on the ten-year endowment plan, with a premium of \$106. In need of all the protection his money will command and willing to pay whatever the risk of his death calls for, he is compelled to pay about \$85 per annum, say, for investment purposes, and to reduce the amount of protection to a pittance, without the company really getting a cent more for the protection it furnishes, perhaps, except in loading, which is, in fact, wholly taken up in paying expenses. An enormously greater margin would be had if \$3,000 or even \$4,000 ordinary life insurance were offered, instead of \$5,000, for the same premium.

Companies of other countries for the most part pursue a different course, having been guided by their actuaries. They have accepted all the lives offered which they thought could be rated, so as to cover the risk and yield a profit. This rating has been mainly by means of one of the following methods:

1st. Extra premiums.

2d. The regular premiums, but at a higher age.

3d. Charging a lien against the policy to be deducted at death, usually diminishing in amount as further premiums are paid.

The first-named method was the first thought of, also, or at least the first to be put in practice.

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As applied to term policies, it gives a diminishing extra rating, taken as a percentage of the provision for normal mortality. As applied to life policies, it gives an increasing provision in some cases and a diminishing one in others; to limited payment policies always an increasing provision, and to endowment policies always a rapidly increasing provision. The last mentioned has been a favourite mode, when the risk has been considered particularly bad and likely to retrograde rapidly.

Otherwise, the method of assessing an extra premium has been found useful mainly when the cause of the extra hazard is temporary and is fixed in amount or nearly so; as, for instance, to cover hazards of occupation, residence or travel. Occasionally also it is employed when there is an ailment which is likely to pass away, but this is not so defensible since insurance deals with averages, and if the individual cases which improve are given a reduced rate, the extra rate imposed must have been enough to cover the payment for such only of the lives as have not improved.

The method of rating up to the regular premium at a higher age has long been favoured by actuaries employed by most companies of other countries. It is based upon the hypothesis, which is not quite true, that every impairment of physical condition may be taken as incurring

a risk of death corresponding to that of the average person of an advanced year of age. This is not accurately realised in practice, both because there are impairments which if not fatal soon, tend to improve, and also because the average result of impairments cannot as yet be foretold correctly. Yet it is so nearly reliable that in a very large company which applied it to about one-third of the lives accepted, the mortality upon these lives was about 67 per cent. of the expected deaths by the mortality table at the rated-up ages, while the average mortality for the entire company was about 65 per cent. The estimation of the degree of impairment was, therefore, very close.

This method has the very distinct advantages that it provides not only for augmented risk now, but also for an increasing liability to die beyond the normal increase from the actual age. In consequence, there is neither justification nor excuse for refusing to issue to these persons life or limited payment policies, and a very moderate increase in the rate means a very considerable extra provision, increasing sharply with advancing age. For instance, when a man now aged forty is rated as fifty, the immediate increase in mortality provision for the actual insurance is only from \$9.79 per \$1,000 by the American Experience Table to \$13.78; but ten years later it is from \$13.78 to \$26.69—*i. e.*, the

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cost at sixty instead of fifty—and twenty years after issue from \$26.69 to \$61.99, the cost at seventy instead of at sixty.

The addition to the age is usually from three to seven years, occasionally as much as ten years when the life is young. Although some companies have experimented with rating up twenty years or more young lives which are badly impaired, it is usual to decline if more than seven or ten years at most appears to be called for.

One advantage of the use of this system is that many lives which in its absence would be dealt with as select, though very near the line, would receive a small rating. Thus a company which accepts by virtue of rating up all but 10 per cent. of the applicants, rating up 20 per cent. of them and accepting 70 per cent. as select, would probably have taken 80 per cent., say, as select in the absence of this contrivance—that is, of the 20 per cent. rated up, perhaps one-half would have been rejected and the other half have been accepted select. If the rating up has been well done, the company gains therefore not merely by being enabled to accept 10 per cent. more of the lives offered, at profitable rates, but also by having put a profitable rating upon another 10 per cent. of the lives, which would have been accepted otherwise with dubious chances for profit.

That this is not theory only is shown by the

fact that the large company referred to has rated up one-third of the lives accepted by it. Its rejections would not have been more than 10 per cent. of the total number of lives now accepted, perhaps, and probably less, showing that a considerable gain is made from the rating up of lives that would otherwise have been accepted as select. This is also confirmed by the circumstance that an exhaustive study undertaken some years ago by the actuaries of a prominent American company disclosed that a large proportion of the lives that would on this basis be rated up were being accepted as select.

Rated-up policies are issued either with the surrender values for the actual age or for the rated-up age. The former are usually the smaller, and since in every other respect the life is dealt with as of the rated-up age, it is apparently unfair to treat it otherwise in this regard. It is also equivalent, especially if reserves are held as for the actual age, to collecting an extra premium of the difference between the premiums for the rated-up age and the actual age. The insured does not receive the additional benefits in dividends and values that accompany the plan of rating up, and the company does not hold the reserve for the augmented risk in after years which the plan calls for.

Giving the lower surrender values, even when the higher reserves are held, is defended, how-

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ever, on the ground that if the impairment passes away and the life becomes select before the rated-up age is attained, or soon afterward, it would otherwise pay the insured to surrender the policy and to insure elsewhere, and thus occasion selection against the company.

The answer to this is that the rate was fixed upon the basis, not of an average expectation, some lives improving and others retrograding, but on the basis that all average to retrograde precisely as do lives that start out in average health from the rated-up age. Now of men who actually do set out from age 50, for instance, it is not true that some are, after some years, safely insurable at the rates for 50 or even younger; and, if it takes place in regard to a rated-up life, the phenomenon should not be treated as a thing provided for in the rating, but, instead, as calling for readjustment. In other words, the company itself should be ready both to give the rate for the actual age at entry and to rebate the excess on the reserve over what is required. This programme would effectually avoid the "twisting" into other companies in such cases, which also cannot be forestalled by illiberal surrender values.

Of recent years the course of American companies in the matter of impaired lives has been materially modified. Several companies now accept such lives freely, but chiefly on a plan which

charges against the policy a lien to be deducted in event of the death of the insured, the lien diminishing each year, usually by the amount of the premium paid, until extinguished.

It is claimed for this method that it provides for an improvement in such of the lives as survive, they proving by this survival that they are as good as average lives, and when only the ordinary reserves for a policy for the face amount issued at the actual age are held, it would be equivalent to charging a diminishing extra premium for an improving extra hazard. But this view can hardly be maintained as to most of the lives accepted, and, of course, mere survival proves too much or nothing, since, even though rated up, many lives would be expected to survive ten, fifteen or twenty years.

The fact is that the system was adopted because, first, something like it had twice been tried in the United States, and, second, it seemed to be most suitable for our agency system for the reason that it does not exact a higher premium, and, therefore, can often be delivered where a policy with a larger premium might not be. Men often have great confidence in their survival, also.

It is to be feared that it is on this very account subject to grave abuses. The agent may withhold information about the lien. But by plainly setting forth the net sum payable

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in event of death, the company can avoid this.

These liens often seem excessive, but that they ever are is by no means sure. They undoubtedly do diminish the desirability of the protection and many would prefer to pay the proper premium and enjoy the full protection. Very large liens would be required if they were made equivalent even to a moderate addition to the age. Computations made by a leading London actuary show that the usual liens—such as from 30 per cent. to 50 per cent., or equal to the single premium for the same plan of insurance—are very moderate indeed.

CHAPTER XXVI

FROM APPLICATION TO PAYMENT OF CLAIM

THE instrument by means of which one makes known his desire to obtain a policy of life insurance is in this country called an application, in Great Britain a proposal. These two names indicate the change of attitude as to the nature of a life insurance contract which has taken place, and also as to who are the parties to the contract. When it was considered that a policy was a contract between the company and the beneficiary, and that the insured's life was merely the subject of the contract, naturally this instrument was deemed a proposal, for it meant in theory, and sometimes in fact, that the beneficiary proposed the life for insurance for her benefit. Later, when, as almost from the beginning in the United States, these contracts came to be considered to be made with the insured as a party instead of with the beneficiary, and when almost all of them are paid for and maintained in force by the insured, it was but natural that the same instrument should be deemed an appli-

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cation, although for many years, even in this country, owing to the conservatism of the courts and their disposition, perhaps, to stick to fixed forms, the application was signed as has already been said, both by the insured and the beneficiary.

Originally the proposal or application blank was a very simple one. Even after it became customary to require the insured to make certain warranties as to his condition of health, past history, last illness, family history, etc., and also as to occupation, residence, travel, etc., the document was, notwithstanding, exceedingly brief and simple.

But with the increased care in the selection of risks, further information was required by the companies, and especially with the introduction of inquiries from the medical referee or examination by the companies' physicians, the blank continued to grow until it was very formidable indeed.

In the United States, owing to our disposition to refuse all but select lives, it became much more complicated, and the inquiries much more extensive than in Great Britain and in most other countries. In the earlier days when the physician was paid a small fee, usually not more than \$2.00 or \$3.00, for the examination, and perhaps also as a relic of the custom of yet earlier times, companies permitted their agents and

other representatives to write in the replies for the applicant. In theory, in those days, the application was filled out by the applicant himself; in practice nearly always by the agent, the application blank containing a provision that for this purpose he should be deemed the agent of the applicant and not of the company. The portion of the application to be filled out by the agent at that time embraced most of the usual questions as to personal condition and personal and family history.

Nowadays, precisely the contrary is the case. The application is usually a very simple document, and contains only the necessary questions to determine the amount and kind of insurance to be taken, the premium to be paid, etc. The other statements are on a separate blank, and are filled in by the physician, instead of by the agent. Notwithstanding which, this is a part of the application, and the statements are usually warranties.

In addition to making these statements, which are witnessed by the signature of the applicant, he must submit himself to an examination by the physician, who, on the other side of the blank, states, for the information of the company, what he has found and witnesses this by his own signature. The examination inquiries embrace all those matters which the physician can find out for himself, while the portion signed by the ap-

plicant covers all those inquiries which he alone can answer.

Formerly it was the custom of companies to permit the application, when the examination was completed, to be turned over, with all the papers relating to it, to the agent. Most companies have now discontinued this practice, and require that the medical examiner shall forward them directly to the home office. Some companies, however, continue the other practice; but these usually instruct the examiners to forward private advices as to their recommendations directly to the home office. The purpose of this is not merely to avoid the possibility of being imposed upon by forgeries, but also for the purpose of guarding against the medical examiner being over-persuaded into changing his recommendations without giving the company the benefit of his previous discoveries and conclusions. There is no objection, of course, to an examiner changing his recommendations, but there is objection to his failing to advise the company of everything which he has discovered.

As a part of the examination by the physician a test of the urine is nowadays almost always required. This test is usually by separation through a centrifugal process, by boiling, by chemical analysis and combination, and by microscopic examination. The last mentioned is not so frequently employed. In earlier days the

companies accepted risks, wholly without this examination, and even until a recent date they required this test only when the amount was large. A microscopic examination of the blood is sometimes called for also.

In earlier days likewise the applicant was required to pay the fee of the examiner, which was, perhaps partly on that account, kept at a very moderate figure. In later years the companies have paid this fee, and in most cases it is now considerably larger, partly, in all probability, because the company is paying it. It is one matter for a physician to collect his fee from an individual, and an altogether different matter to collect it from a company, and while the mere fact that he has a larger patronage from the company might seem to call for a lower rate of compensation, this is not usually the way it turns out. There have been exceptions to this rule, however, which have taken two forms: first, the fixing of a lower fee on condition that a certain number of examinations should be made, so that the aggregate income would be a sufficient sum; and the paying of a salary instead of fees. The former has been employed by industrial companies chiefly, the latter by several of the most important companies transacting an ordinary business.

In connection with the operations of the great Australian company, an experiment of the most

valuable character has been made in this matter, viz., employing a physician on a salary to accompany each active agent, on a basis that he should actually represent the company, aid to cause the proper rate to be put upon the life, and, in fact, combine the duties of medical examiner and medical director, subject, however, to correction of his judgment by the home office.

In former days it was customary for the payment of the first premium to be withheld until it was known that the life was accepted. This is still the custom in Great Britain, though even there the premium is nowadays paid usually when notice is sent that the life has been accepted, and the policy is issued some time afterward. In this country, on the other hand, a custom has grown up of giving a binding receipt and collecting the premium, or making a settlement in regard to its payment, when the application is taken, or, in any event, before the papers are sent on to the home office. Of course, this is not the invariable custom, but it is usual, and the receipt which is given the insured binds the company to pay the claim if the risk has in fact been approved and death takes place before the policy is issued and delivered, and to deliver the policy, no matter what the insured's condition of health at the time of delivery. There is usually a blank in the application, showing whether the premium has been paid in advance or not.

If it is not so paid a condition of the policy is that it shall not be in force until it has been delivered and the premium has actually been paid. It is, therefore, always wise to pay a premium in advance and take a binding receipt, not only because in event of death before the delivery of the policy, but after the approval of the life, the insurance will be in force; but also because agents are instructed otherwise not to deliver the policy and collect the premium in event the insured is not then living and in good health. It is also a condition of the policy that it shall not go into force unless the premium is paid during the lifetime and good health of the insured.

At the home office the application and examination are referred to the medical department. The medical director or one of his assistants examines the same carefully, noting any defects which may appear in the present condition of health, personal history or family history. If the life is strictly first-class, his labours are completed when he has so certified, and the policy issues as a matter of course on the plan and for the amount applied for, provided that the result of an inspection of the life, which is nowadays nearly always required, proves to be satisfactory. This inspection is an improvement upon an old practice of asking a reference to an intimate friend. It consists of making inquiries through the commercial agencies or otherwise

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concerning the reputation, habits, condition of life, income, general state of health, etc., of the applicant, and several of the companies refuse to issue a policy under any circumstances until a satisfactory report has been received through inspection.

If the risk is not deemed first-class by the medical department the course in different companies varies. In some companies the medical director either rejects or determines precisely what shall be done concerning issuing a policy with an extra premium, with a lien charge, or on a different plan, deemed more desirable from the standpoint of the company. In former days the medical director had all to say about this matter, and, as has already been stated, his preference was for endowment policies. Nowadays, more frequently the matter is referred to a committee, composed usually of an executive officer, the actuary and the medical director. By doing this the medical director is relieved of some part of his responsibility and the benefit of the points of view of all three officers is obtained. In consequence, in recent years, adjustments to meet the conditions of impairment in the life have more frequently been made by means of liens under the plan which has already been described.

When the matter has finally been disposed of the requisite particulars from the application

are passed to the policy clerk, who prepares a policy in accordance. This work is clerical, to be sure, but is a matter of great responsibility, especially since the writing in of guaranteed surrender values and loans has been introduced. The work of checking the same is assigned to a clerk or official of a higher order, who is held to yet stricter accountability. After his inspection the policy is brought to one of the executive officers, who signs it and transmits it to the agency department of the company to be sent through the usual course to the agent for delivery. Most frequently delivery is accomplished by the agent in person.

After delivery a life insurance policy is usually not referred to or anything done about it until either a claim arises or it is desired to surrender the policy, or to borrow money upon it; but, in the meantime, premiums must be collected. The laws of most of the States require the companies to give notice of the falling due of premiums in a special manner, which is strictly adhered to, record being made of the same, and the clerks being prepared when their memories are refreshed by these records, to make affidavit that they have duly mailed the required notices, which are sent out not less than one month before the premiums are due. In many cases, though by no means in all, the insured is entitled to one month after the due date of the pre-

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mium within which to pay the same, the penalty being that he must pay interest upon the overdue premium.

The company furnishes its collectors, who are usually either its agents, its local cashiers or banks through which it makes its collections, with premium receipts, already filled out, and bearing the signature of an executive officer, but invalid unless countersigned as authorised therein. Save in exceptional circumstances, the policyholder should not pay his premium to any person, except in exchange for such a receipt, and if any special occasion for making payment otherwise should arise he should require a receipt setting forth the facts and stipulating that the company's receipt will be obtained and delivered.

In applying for a loan upon his policy the insured should first examine the contract itself and see what provision, if any, it contains concerning the making of loans, and should then comply with the conditions of any such provisions strictly. In some companies loans are permitted only at the end of policy years; in others they may be had on demand at any time. The company usually has a loan agreement in a fixed form which it requires the applicant to sign. Some companies provide in their policies or loan agreements that the advance is made against the sole security of the policy, so that under no cir-

cumstances can there be a claim against the policyholder. This is a wise provision, perhaps, but in practice there is little danger that loans within the amount of the reserve values of life insurance policies will turn up as personal obligations beyond what can be realised from the insurance company. In fact, they would be treated at law as offsets, precisely as a deposit in a failed bank is treated as an offset to an obligation owing to the same bank. There are also two other reasons why no especial importance need be attached to this, viz.: first, that legal reserve life insurance companies rarely fail, and when they do there is usually only a small impairment of the reserve; and, second, that these policy loans have in no case been hypothecated or sold by the company.

In the matter of surrender values, likewise, the applicant need only comply strictly with the conditions of his policy, making application at the proper time and for the proper form of surrender value. Usually it will be found that the company, while very loth to have him cease the payment of premiums, will facilitate in all possible ways the surrender of the contract, and will put no obstacle in the way of his receiving the full value.

In earlier times the making out of proof of loss under a life insurance policy was a matter of considerable difficulty. The American com-

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panies require a great deal more information than is customary in other countries, and certainly more information than seems to be absolutely requisite. This is probably with a view to determining more accurately the cause of death for statistical purposes. Usually, however, statements on the part of the beneficiary, the physician who attended the deceased in his last illness, a friend of the deceased who was present and who can identify the body, the attending clergyman and the undertaker are required. These certificates are given under oath, and the agents of the companies usually give all possible assistance in obtaining the same, forwarding them and securing a settlement of the claim. Unless there are legal or other difficulties encountered, settlement is nowadays very prompt on the part of the companies, and indeed no class of financial institutions takes greater pride in meeting obligations promptly and in full than the life insurance companies throughout the world. The proofs of loss, however, are carefully criticised at the home office, and if there is anything which excites suspicion that fraud is being practised or that the claim might be paid to a person not really entitled to recover, the proceedings are halted and a careful investigation is made. This is for the protection of the real beneficiary's interest as well as of the company's.

CHAPTER XXVII

INVESTMENT OF FUNDS

PERSONS who misconceive the chief function of life insurance sometimes speak of the investment of its funds as the most important feature of the management of a company. This is not the case, perhaps, but the sufficiency of the rates of net premiums, not to speak of the proportions of the dividend returns, depends upon the funds being safely invested so as to realise at least as good a rate of interest as was employed in computing these premiums. Consequently, it is of the first importance that the investments be safe and remunerative.

The nature of their contracts with their policyholders does not render it necessary for life insurance companies to hold their funds in short term or call loans, as must commercial banks of deposit which receive principally deposits subject to demand. A life insurance policy matures but once, and, aside from calls for loans or surrender values, one payment—*i. e.*, at maturity—is all that the company is required to make. The

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amount of money required from time to time to meet the claims can be foretold pretty closely and can be provided for, usually, without disturbing the investments.

Commercial paper also is nearly everywhere, and certainly in the United States, deemed an inappropriate and even a dangerous investment for life insurance companies and other institutions which are not liable to a sudden and large demand for money, and which in consequence would not be likely to keep so close track of notes of hand and the responsibility of their makers and endorsers as do banks of deposit. Consequently, by law in this country and by the rules of companies elsewhere, this form of investment is proscribed.

Life insurance companies do favour other "quick" investments, however, such as bonds and stocks which are quoted in the exchanges, and loans upon these securities. This preference is due to three reasons, at least, viz.:

The best of these securities look particularly well in an annual statement of the assets and liabilities. They are known and the estimation of their value in the market is known. The company which holds many of them, and especially if all are of the highest character, bearing the top quotations, is said to have "gilt-edged" assets, and is likely to be preferred in a contest.

These securities are very easily revalued,

quotations for them being often made, and for the same reason an opportunity to dispose of them at a profit may be recognised and be taken advantage of.

They can be purchased usually in large amounts, and even then little independent investigation need be made in most cases, the market rumours and the published reports supplying what is required, while most other forms of investments call for much more trouble and annoyance in this regard, and besides are offered in much smaller amounts.

The dividend or interest is likely to be paid punctually and in a convenient manner, as in the redemption of coupons, at a minimum of expense and without special attention to details.

They are readily convertible in ordinary times at the current market quotations and may be realised upon in short notice.

They are for long terms, or, in the case of stocks, permanent, and therefore do not involve continual reinvestment of the funds.

Some of these advantages are of great moment; others of little or none. It certainly is advantageous to hold investments of high reputation for long terms in large amounts and with regular returns. But the "convertible" feature is rather detrimental than otherwise, because it is no more necessary that life insurance investments in bonds and stocks be "quick" than that

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they should invest in commercial paper, and in point of fact in times of general financial stress, when a company naturally might desire to realise, these securities cannot be disposed of without breaking the market, so that this feature often proves delusive.

There is one really very serious objection to the investment of life insurance funds in "quoted" securities. It is that the mere fact that they are quoted disposes managers in some cases to watch the market closely with a view to buy and sell to advantage—in plain English, to speculate in prices, instead of merely to buy for the purpose of investment. The amount of this, however, in the conduct of any reputable company is believed to be small. The mere fact that it can be done and indeed is easily suggested by the conditions has played a part in introducing "underwriting of securities" as a part of the investment business of life insurance companies in some cases. In other words, these companies subscribe for certain portions of the issues of new securities, with the purpose of disposing of some or all of them to others at a profit. This has so far been carried on profitably, it is said, though it is also reported that some of the securities taken in this manner could not at any time since be disposed of except at a loss. The whole transaction seems so foreign to the proper business of a life insurance company that

it is almost impossible to believe that it will be defended seriously or will long be permitted. Underwriting securities is a branch of insurance, really, and one that should be undertaken by companies or firms that make it their sole or at least their chief business. Their underwriting margins are to cover a risk, and life insurance companies are instituted to provide, not for that risk, but another, and their funds should not be exposed to unnecessary hazard, even for a consideration believed to be adequate.

Another objection to quoted securities is that the investment yield is low. Returns upon investments which are equally safe, but are not so well known nor so readily convertible, are usually considerably higher. In other words, a price is paid for the public repute and the convertibility of the securities, neither of which is really of very much importance to a life insurance company.

Otherwise, investments in most of the bonds which are usually listed on the exchange are unexceptionable and indeed of the most desirable character. Investments in stocks are on a different footing. From the standpoint of permanency they are preferable and in some cases the returns seem to be quite as reliable as the yield of good bonds and materially larger. But, owing to the modern and nearly universal custom of corporate borrowing, the stock is usually

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postponed as a security upon the actual properties, to one or more issues of bonds. In consequence, the variations of the earnings fall wholly upon the stock, and in the event of winding up the corporation the stock is worth merely whatever is left when the prior liens have been satisfied. Quoted stocks, therefore, fluctuate in market values much more than do the values of bonds. These facts render them much less acceptable as investments than good bonds and but a small part of the funds of the life insurance companies is invested in them.

All stocks are, as investments for life insurance companies, subject to at least one very serious objection, viz.: That the owner of a stock is virtually engaged in the business conducted by the company issuing the stock. Life insurance companies were incorporated to do a life insurance business, not banking, nor railroading nor gas nor electrical lighting. It is, therefore, somewhat inconsistent for them to engage "by proxy," as it were, in other lines of business by becoming the purchasers and owners of stocks. On this, as well as other grounds, Germany has forbidden the investment of life insurance funds in stocks, by any company doing business there, and accordingly two American companies are now subject to that law. Several others voluntarily exclude stocks from their investments.

An illustration of the fact that stock investments are really interests in limited partnerships is that the holders of stocks in national and some other banks are, in the event of the insolvency of the banks, liable for double the amount of the stock. In consequence, one class of stocks, and that, one of the best, is thought by many to be peculiarly inappropriate for the investment of life insurance funds.

A special plea, deserving of attention, is put forward in favour of investments in the stocks of banks and trust companies which are controlled or largely owned by the life insurance company. The argument is that by this means the life insurance company, without engaging in underwriting securities, is enabled to avail itself of the confidential information and expert assistance of companies that do engage in that business, and so to buy to the best advantage. Doubtless it sometimes works that way. Moreover, the investments in these stocks have often been very profitable because of the increase in their quoted prices. But the advantages seem to be more than compensated by the danger that into the transaction of these subsidiary companies with the life insurance company may enter the temptation to use the latter for the benefit of the former and thereby for the benefit of their other stockholders, including persons who are directors in both companies. Accusations of

this sort have been made and it is but reasonable to suppose that they have some foundation. This form of investments in stocks appears, therefore, to be open to at least as many objections as other investments in stocks.

Perhaps the best form of investments in bonds is State, municipal, county, town, school district and other bonds, issued for public purposes. Most of them are not quoted and consequently are not subject to market fluctuation. They are usually for long terms and yield a somewhat better interest than listed bonds. The amount of the issue is sometimes small, though occasionally large; but a purchaser, by bidding directly, may secure the entire issue.

There are some objections to them, however. There has been repudiation in some cases, so that the validity should be investigated carefully. In some localities changes in the business or crop conditions have ruined districts, towns, cities or counties for the time at least and rendered the bond issues of doubtful value. Therefore, strict investigation of the financial and economic conditions is necessary. All this means trouble and some expense.

Real estate mortgages were once preferred by all American life insurance companies. When carefully selected they should cause a loss of interest but seldom, of part of the principal yet less frequently, and of all the principal never.

While a very large part of the investments of some companies is yet in real estate mortgages, and some part of the investments of all, they no longer occupy first place.

Several things have contributed to this result. The land "booms" in some parts of the country did a great deal to discredit real estate investments of all kinds. The slump in values in some of the larger cities in 1893 and the next year or so was also not without effect likewise; the gradual reduction of returns upon real estate mortgages of the choicest character has played a part.

The chief cause of the changed attitude of the life insurance companies, however, is believed to be the very great increase in their funds and their failure to organise their investment departments with the same thoroughness as their agency departments, for instance. Most of the companies relied upon the ordinary local real estate agent to offer mortgages, and so suffered with other lenders because this agent could profit only by securing loans for his customers and so had an interest in getting them through if possible. The managers of the life insurance companies, as the burden of caring for the investments became heavier, instead of systematising the work and extending the system throughout the country, drew in their lines and adopted a system of concentrated responsibility

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which called for larger loans than the average mortgage loan that was offered. The result was that loans for less amounts, especially in smaller cities, villages and the open country, were neglected, and, while the interest realised by the principal companies was tending downward toward 4 per cent. in many parts of the country, East and West, the money famine, as to small loans upon real estate, was such that from 6 per cent. to 8 per cent. or more could be had upon security, quite as good in point of fact as that behind the best bonds.

Millions of dollars of these loans were taken over by building and loan associations at rates of interest far beyond the legal standard, this being allowed in these mutual societies, and some of them at rates so exorbitant as to mean ruin for borrowers. But, with one noteworthy exception, the important American companies, including even those which did not virtually discard this form of investment, failed to appreciate the conditions. The one exception referred to is to-day realising nearly 6 per cent. and has lifted itself thereby into the foremost ranks in rates of dividends to policyholders.

A large American company, long an advocate of real estate loans and of avoidance at all hazards of fluctuating securities, once had the entire West for a field for small mortgage loans, and by reason of considering all applications

directly, and refusing to permit loans to be negotiated through agents who charged a commission, was in a fair way to become the first choice of all discerning borrowers. Then the bother question came to the front, under a new investment manager, and the funds grew to such dimensions that a better system was needed; this problem was solved by dodging it, *i. e.*, by abandoning the small loan field and lending only in comparatively large amounts mainly in cities and where trustees could inspect the property. And now this company reports gross interest returns of only a little over 4 per cent. and has lost, perhaps irretrievably, its one-time reputation of being easily the foremost American company in dividends to policyholders. When it thus feebly let itself be parted from the recommendation to small borrowers upon real estate security, that from it they could obtain money without paying commissions to loan agents, it lost one of its most valuable assets.

Our great financiers, whether in life insurance companies or in other institutions, have reason to blush for the manner in which they have dealt with this most promising field of mortgage loans. The achievements of the *Crédit Foncier*, of Paris, with \$350,000,000 in small real estate loans throughout France and Algiers and \$350,000,000 more in loans to municipalities and other government corporations, all on easy terms, pro-

cured without the payment of commissions and repayable by frequent instalments, really put us to shame. One of its chief assets, also, has always been the absence of the intervention of loan agents, with their demands for commissions; but, though there are many other valuable features in its conduct of the business, the most effective one has been the system which resulted in small loans being available without loss of safety and with a considerable increase of profit.

The laws of every State permit real estate loans, but under varying restrictions, ranging from loans on real property, improved or unimproved, worth 40 per cent. more than the sum advanced, according to the new law of California, to loans on improved property only, worth at least 100 per cent. more than the sum loaned, and not counting improvements if the real estate is a farm. The provision against loans upon unimproved property was born of wisdom, derived from bitter experience in earlier days when the exploitation of town and suburban lots was undertaken in this manner, to the ruin of companies.

Loans upon their own policies form no inconsiderable part of the investments of life insurance companies nowadays. These loans are the safest of all securities when within the amounts of the reserves upon the respective policies, for

the reserves upon all life, limited-payment and endowment policies increase continually and the loan is therefore secured by a liability on the part of the company on account of the policy of at least equal amount.

All the life insurance companies in this country now allow cash loans upon their policies; but it is a matter of recent date that some of them bitterly contested the propriety of this and refused to permit it. The contention was that it was tempting the insured to trifle with the sacred interests of the beneficiary. In very many cases, of course, loans are taken in order to sustain the protection, and in any event the insured, with his duties as husband or father, must be trusted to decide for himself.

In earlier days investments of the funds in commuted commissions or in advances to agents against their renewal commissions were common features in the statements of companies. Nowadays the latter item is still seen now and then, but it is not of much importance and most frequently reported among the "non-admitted" items.

Items which are found in the assets of British and foreign but not of American companies, are life interests and reversions purchased and owned, or loans upon the same. These forms of investments are peculiarly suitable for life insurance companies which have the knowledge of

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the exigencies of life and survival that would enable proper valuation of such securities. But opportunities for making these investments are uncommon here, and besides, the State laws usually make no provision for them.

CHAPTER XXVIII

LESSONS FROM THE CREDIT MOBILIER AND THE CREDIT FONCIER

ALL students of American financial history are familiar in some degree with the career of the *Crédit Mobilier* of America. It was organised to "underwrite," though the word was scarcely known in those days, the securities of the Pacific railroad companies, and its colossal failure, after involving more than one statesman in its corrupt manœuvres, made the very name a stench and a byword throughout the country, and indeed throughout the world.

At the time it was organised an institution with a similar name was in the same kind of business with Paris as its headquarters, and indeed its apparent success was the proximate cause of the organisation of the American company. The French institution lived longer, but in its own good time went to pieces also.

One needs not to be told, perhaps, that each of these concerns was organised and conducted by men who obtained their chief profits, not in

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dividends upon their investments in its stock, but in gains from the promotion of other companies and the sale of their stocks by this system of underwriting. In other words, the officers and directors had interests adverse to the interests of the stockholders, and, however much they may have tried to hold the balances even, they could not and did not fail to look out for themselves first. In other words, their selfish ends blinded them to the duties of their trust and also to the inevitable consequences of their conduct.

The similarity of these conditions to those which are beginning to put in an appearance in life insurance will not fail to be observed. In a large company, of late under investigation and much before the public eye, the controlling stock interest could secure in dividends only a pitiful 7 per cent. on the par value of \$50,100, *i. e.*, \$3,507 in dividends. Of course, control brought also the power to vote salaries; but if used to vote salaries that were not fully earned, this also became an adverse interest. But the chief adverse interest is said to have been in the purchase of investments which amounted virtually to underwriting securities in which the owners of the controlling interest in the stock were interested also, or in buying securities underwritten by them. This is not merely very like the “underwriting” in the *Crédit Mobilier* days, but

in some regards is more alarming, for life insurance funds were not embarked for this purpose, as were the funds of the *Crédit Mobilier*, but instead as the security for the most sacred of all trusts, that of provision for those whom the death of husband or father leaves defenceless against want. Moreover, the men who thus serve with a divided allegiance have by no means so extensive interests at stake in the life insurance companies, the funds of which they thus manipulate, as the promoters and chief owners of either *Crédit Mobilier* possessed. Indeed, their legitimate interests in the life insurance company are frequently very small in comparison with their gigantic interests in the undertaking that may be served by the purchases or underwriting of securities.

For this majority interest it is reported that several million dollars have been paid. If so, it may well be asked: By what means are returns upon such an investment expected to be realised?

Notwithstanding the public outcry of financial sensationalists and also notwithstanding the undeniable fact that there have been some irregularities in this regard, it is not true that any very considerable amount of this sort of thing has as yet been indulged in. The evil has been exposed in its very infancy, and, if extirpated now, no great injury will result. There has been

no serious loss to any company, nor is there likely to be, so far as can be foretold, because of investments already in hand. But it is plain that the greatest possible perils attend the system, which cannot too soon be wholly abandoned nor legal barriers be too soon erected against even the possibility of its again effecting an entrance.

It came about innocently in a way; on which account it would be possible to judge too rigorously the men who have been led to participate in it. As these companies became larger and larger, the investment problem grew more and more serious. The chief officers, accustomed, while the companies were smaller, to keep a sharp oversight upon all investments, found this very difficult, especially when there were many small loans or purchases. The inclination to depend more and more upon the public estimate, as reflected by the stock quotations and the bond market, grew upon them. Soon they came to rely largely upon the advices of particular persons whom they knew and trusted, and to prefer investments that were presented by certain persons in whom they had confidence, and especially did they feel safe concerning investments in the securities of companies in which they were themselves interested and about which they felt that they were well informed. Besides, when the company invested heavily in the securities

of a given corporation, it was but natural that its officers should do so likewise, and then only reasonable that the company's interests and theirs should secure a voice in the management of that corporation—a few places as directors, for instance. And then, as between two investments equally good and paying the same, why not favour friends above strangers? And so through the whole psychological path which leads to financial devilment and along which men have travelled to the betrayal of sacred trusts, ever since such trusts have been known among men. Fortunate are the people of America that exposure came so early that the ill can easily be cured, leaving the great life insurance funds intact and ample to protect the defenceless dependents for whom they were built up painfully by devoted husbands, fathers, sons and brothers.

But a few things are required to accomplish this: Greater publicity in annual reports so as to show the entire movement of a company's investments each year in detail, prohibition of investments in stocks or rigorous restrictions upon the same, conditions governing investments in corporate bonds similar to those enforced in the case of savings banks, and disqualification, enforced strictly in all cases, of all directors of a life insurance company who profit directly or indirectly by the sale of

securities to the company or by loans made by it.

This is but one-half the story, however, the moral of which is pointed by the failure of the two *Crédits Mobilier*; the other half tells of lost opportunities that may be availed of still, perhaps, and its moral is pointed by the success of the *Crédit Foncier*, also of Paris. The earlier career of that company was the cause of the formation of the French *Crédit Mobilier* on lines that were superficially similar.

The *Crédit Foncier* was organised, however, to earn dividends for its stockholders by performing an important service and with no ulterior motive or expectation of profit, in which, as in the system that grew out of it, it was radically different from the later imitations.

The purpose was to carry to the holders of small estates, whether in town or country, some part of the benefits in lower rates of interest which attend securities, issued in large amounts, backed by ample capital and sold and quoted upon the Bourse. This was and is done in the following manner:

The *Crédit Foncier* guarantees its bonds by its capital and surplus and also by the deposits of mortgages taken by it, being a first lien upon real estate in France or Algiers, or the bonds of public corporations generally classed as "municipal." The bonds are issued in series,

one at a time, and at a rate of interest that will cause them to sell just under par, thus assuring that the lowest interest rate possible has been secured. Applications for loans are received from all parts of France and Algiers, no commission being paid nor in any case permitted to be paid for their procurement. These applications are considered upon their merits. Loans are granted only upon the amortisation plan, *i. e.*, on the basis of an equal payment every six months which will in a given period of years repay the loan, principal and interest. The security is deposited specially for the guaranty of the bonds of this series, which are also guaranteed generally as stated, by the entire capital and surplus. When a loan is granted the Crédit Foncier gives its bonds of that series, instead of cash. The borrower must sell these bonds, paying a broker's commission therefor, in order to realise; but this is his only expense cost, excepting for the execution of papers and examination of title.

The money received from borrowers in this series is applied first to meet the interest on the bonds of that series. The remainder is employed to redeem bonds of that series at par and accrued interest, as also are the proceeds of any sales of property taken upon foreclosure.

Originally its charter permitted the Crédit Foncier to add 30-100 per cent. of the principal

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sum borrowed to the net semi-annual payment required to repay the loan in the term agreed upon, computed at the same rate of interest as the bonds bear; but this margin, equivalent to 1.20 per cent. per annum or thereabout, on the average, upon the mean principal outstanding, proved larger than was necessary, and it was later cut to a fixed addition to the rate of interest upon the bonds of 6-10 per cent., the semi-annual gross rates to be figured at that rate of interest.

On this basis the earnings of the *Crédit Foncier* enable dividends at 15 per cent. per annum to be paid upon its immense capital, which must be kept at 10 per cent. of its outstanding bonds, and is now about \$75,000,000. There is little doubt that in the United States, had such an institution been founded and been guarded in a similar manner, much greater things would have been accomplished—and may yet be accomplished. In France and Algiers the operations have been extended also to investments in municipal bonds and similar securities on a like principle of instalment repayments, and a recent statement of this greatest of all financial institutions shows assets of over \$750,000,000, of which over \$350,000,000 represents real estate loans, averaging only about \$11,000 each, and about \$350,000,000 represents bonds as stated. The remainder is cash and convertible securities, the

charter providing that the surplus shall be invested in that manner.

But the purpose of this description is to indicate what might have been done here by our life insurance companies, had they perfected a general investment system so as to accommodate the needs of small borrowers, whether individual or municipal, instead of making of themselves in some degree adjuncts of the stock and bond markets, bidding down the prices of the quoted securities of the highest reputation and constantly tempted to be satisfied with something not so good.

No other class of institutions in the United States could so well have undertaken "instalment loans" on real property as the life insurance companies. Their premium-collecting departments could easily have made these collections also. Their actuaries possessed the requisite mathematical skill to compute rates of payments and the amounts required to pay off loans before maturity, as well as to value them each year for the annual statement. All that has ever been needed was a recognition of the possibilities and benefits of a method which helps a man to get his debt repaid, both from the standpoint of the lender and the borrower, and the introduction of a thorough system which would enable small loans to be handled with a minimum of expense and risk. Had this been

perfected fifty years ago the shameful "western mortgage" fiasco would have been avoided and a stability in real estate values, as yet not realised in this country, would have been obtained. So great has been the real need for it and such the recognition of that need on the part of the borrowers that building and loan associations, often with usurious rates of interest and sometimes with misleading and even fraudulent plans, were formed to supply the want. Despite all setbacks, these are now estimated to hold no less than \$150,000,000 of loans, which are being repaid, usually on a sinking fund plan, by instalments. This "sinking fund" is an investment in the stock of the association which at maturity pays off the loan, but in the meantime no part is really applied in reduction of the principal.

Life insurance companies could have supplied these loans on the basis of gradual reduction of the principal outstanding, and they ought to be doing so, for investments so profitable and so thoroughly suited to their requirements are few, indeed. Had they done this, the principle would, no doubt, have been extended long ago to municipal loans, including loans to the humblest school district as well as loans for the taking over of public utilities by great cities, the payments upon which would be made out of the current earnings. Thus, too, great public problems

of irrigation and drainage might long ago have been solved by large districts. Instead, we have at the best our municipalities setting up pitiful sinking funds, sometimes buying in their own bonds at a premium or recklessly making no provision whatever for repayment and rashly depending upon never-failing ability to renew. The city of Paris long ago learned the lesson from the operations of the *Crédit Foncier*, floats its own bonds on the amortisation plan, pledging certain revenues for their redemption, and thus saves the margin charged for the guaranty.

Practically the entire field of small loans upon real estate and loans to small and even to most of the larger municipalities ought to-day to belong to the life insurance companies and would have been theirs, paying at least one per cent. better interest than they now earn, had they cultivated systematically the people at large with instalment loans instead of "the street" with call loans and purchases of convertible securities.

All the companies have done in this direction is as follows:

In an early day some of them made loans on real estate, with endowment policies as collateral security, the maturity of the endowment repaying the loan. Their excessive dividend estimates soon rendered the plan unpopular, especially as they used them as a cover for charg-

ing an excessive rate of interest upon the loan. Repayments before maturity, little or nothing being allowed upon surrender of the endowment policy, did not increase the popularity of the plan, which had to be abandoned. In one western state the scandal became so great that a law was passed prohibiting the requirement of life insurance policies as collateral to real estate loans.

Various attempts have been made, either by means of endowment policies as collateral, of "redemption" schemes or "endowments in advance," to get a larger rate of gain out of the borrower than he understands that he is paying. Each of these has deservedly come to grief. The bad faith, as well as the excessive burden, assured that.

Life insurance companies could make these loans safely and profitably, either with the obligation to be cancelled in event of death before repayment is complete or wholly without insurance, and, were they to do so, we should hear little of the difficulty of obtaining safe and remunerative investments which now, it is said, drives companies into underwriting schemes; and, while serving themselves, the companies would also be performing a great and valuable service for the public and extending and confirming their hold upon the people's confidence and good will. All that is required is that the

managers and directors cast aside unwarranted timidity and their inherited notion of personally inspecting every investment, and with an eye single to the fulfilment of their trust, proceed to construct upon well-tried lines a system which will distribute their investments throughout their fields of operations, among the people whose funds are in their hands.

If they do this the possibilities are limitless; if they do not, but instead persist in a course of concentration, other institutions, probably purely financial, will surely seize the opportunity which they let slip and in time will pass them in the race for bigness as well.

CHAPTER XXIX

REORGANISATION OF ASSESSMENT INSURANCE SOCIETIES

THE “business assessment associations,” that is, assessment societies of the class which do not make use of the fraternal lodge feature, were compelled to begin reorganisation much earlier than the fraternal societies, although they were organised at a later date. This was due in large part to the pressure of their comparatively heavy expenses, but also in part to the fact that business men were in control, who saw that their own emoluments would soon be cut off by the failure of the associations unless a change of plan could be brought about.

The earliest attempt to escape from the faulty assessment system was by means of the adoption of a premium which was expected to be level, but without any good ground for the expectation—that is to say, a scale of premiums was put into effect so far as new members were concerned which produced for the time a considerable surplus, but no pains were taken to

assure that the same could be held level throughout life. Several of the more important assessment associations made use of this device, leaving their old members upon rates already known to be insufficient, and in some cases actually drawing upon the funds contributed by the new members, in excess of mortality claims under their policies, to help out the deficiencies in the payments of older members.

In but one or two cases was there even an attempt made to ascertain whether this provision would be sufficient on the basis of a certain lapse rate being experienced. One association was organised to do business with rates based upon such an assumption, and its transfer into a regular legal reserve life insurance company did not prove to be a difficult thing, although, in point of fact, the experiment with this system of insurance was not wholly successful. In most cases, however, the premium, which came to be called "a stipulated premium," was fixed in some haphazard manner, such as by adding a certain amount per \$1,000 insurance to the one-year term premium or even a percentage of itself, thereafter failing, of course, to have the premiums increase as the insured became older.

The accumulation of funds, however, under these provisions for a time gave a standing and credit to some of these associations which was not deserved and could not be maintained. The

failure to readjust the rates for the older members after a time caused large inroads to be made upon the accumulations, and when dissolution began its course was very rapid. A large association in the West which had sailed under the colours of Freemasonry, and another in Massachusetts, failed to grapple with the conditions in a serious manner early enough, and in consequence were compelled to go out of business, the former by means of a reinsurance and a receivership, and the latter by being wound up under a receivership.

This obviously fallacious and misleading plan received unexpected endorsement in very high quarters, when the Legislature of the State of New York passed what is known as "The Stipulated Premium Law," approved by the insurance department of the State, and indeed regarded as practically a department bill. This law was requested, it is understood, by one of the larger assessment associations, domiciled in New York, that alone took advantage of its provisions, which were that, while the usual reserves should be required as to limited payment policies, in the case of whole life policies with level premiums the requirement should be only that the company hold at all times a reserve equal to the net premium for one-year term insurance at the attained age. In other words, a whole life policy was to be valued as if it were a

renewable one-year term policy with increasing premiums, although the premiums were not to increase and were to be held out to the members as level for life. Since the reserve is merely that sum which is absolutely required, together with future level net premiums, to keep them level and to meet the future costs of the insurance, this was tantamount to giving the State's certificate of solvency to an institution which, in the nature of things, would not be able to carry out its engagements by holding the assets and collecting the premiums which the State was certifying would enable it to carry them out. That such a law could have received the approval of the insurance department of an important State is an astonishing thing, not easily explained.

There was no requirement that the premium to be collected should be equal to the level net premium required according to the standards of mortality and interest set up by the law itself. It was, in consequence, entirely possible for an association to carry on its business, claiming to be a life insurance company with full reserves as required by the laws of the State of New York and as certified by its superintendent of insurance, which, in point of fact, neither had sufficient reserves nor charged sufficient premiums. Had the provision been carried out literally it would have called for twice the reserves proper to a one-year term policy—that is, for a

policy for one year only, or for a longer time with the rate increasing each year as the age increases. The actuaries of the department, however, were reasonable men and so construed this requirement to mean merely that the usual one-year term reserve was called for. This was a sensible view to take, because, from a scientific standpoint, otherwise the law could mean nothing. Thus construed, it meant that these policies were to be treated as renewable one-year term policies, although they were not of this character, and such construction was wholly wrong.

It looked for a time as if this madness was about to sweep over the entire country. Some important States, as, for instance, Ohio and Missouri, promptly enacted similar laws. Several business assessment associations exhibited a marked desire to get the benefit of the certificates of the department, provided by this statute. When the laws of the State of the company's domicile made no provisions for companies of this kind, the association would undertake to qualify as a stipulated premium company by applying for admission to New York or one of the other States as such, and by complying with the reserve requirements. Rather inconsistently the New York department refused to consent to this and its ruling was followed in the other States for the most part.

In this connection an interesting incident may be related which will shed much light upon the evils of this condition. A certain large western association which was then flourishing and which might easily have been preserved, had its managers not been misled into accepting instead of real adequacy the pseudo-adequacy provided by these laws, first applied for admission to one of these States in order to get the benefit of the certificate. Upon this being refused, the managers applied to a consulting actuary who, without telling an untruth, could have certified that the association could comply with the requirements of the New York law as to the reserve for stipulated premium companies, according to the Actuaries' Table and 4 per cent. interest, and would still possess a surplus of many thousand dollars. The certificate was refused, it being manifest that the sole use that could be made of it would be to create the impression that the rates and reserves were adequate. Blinded, however, by the false impression caused by the adoption of these laws, the management persisted in its course until ruin overtook the association.

And in some other cases many of the evils which might have followed the adoption of these laws were prevented by the prompt exposure of their defects by the independent insurance press of the country, which criticised them unsparing-

ly, and, by apprising the agents of the regular companies throughout the country of the facts concerning the form of valuation prescribed by the law, prevented this unwarranted certificate of solvency from being as effectual as was anticipated.

In consequence, the only association that reorganised under this law in the State of New York soon changed its status again by taking advantage of the privilege of passing over into a level premium company. No new company has ever been organised under the stipulated premium law in New York, and it stands to-day a dead letter upon the statute books and a monument of the folly of the managers of the association which caused it to be introduced and of the shame of the department which weakly consented to it and approved it.

Had the stipulated premium law not failed of its purpose, the assessment associations, by reorganising under it, could and would have continued the issuance of policies for the whole period of life at inadequate rates of premium and with the pretence that the payment of the policies was secured by adequate reserves. This disgrace was narrowly averted. Nearly all the departments, however, exhibiting a praiseworthy desire to assist the assessment associations to get on a sound basis, were guilty of laxity in their rulings to enable them to pass over into

regular life insurance companies, in the following regard, viz.: While they did not permit the association to issue new policies, after qualifying as regular life insurance companies, without putting up sufficient reserves thereon, they consented to treat the old assessment policies as renewable one-year term policies for valuation purposes. The theory upon which this was done was that, while the individual policies were not, in fact, one-year term policies with increasing premiums, they were current cost policies in the aggregate, with provision that sufficient money must be collected currently from the insured under this class of policies to pay the aggregate losses. By the legal contract it is true that no reserve is required, excepting sufficient to pay losses up to the time the next premium fell due, but it is also true that to permit these policies thus to be classified as legal reserve policies was fundamentally an error, and their valuation on this basis was an endorsement of the proposition that a system of this sort could be operated indefinitely, and that the last claims to fall due under such policies actually could and would be paid. It would have been possible, in fact, to have valued the policies on the basis that the stipulated premiums named in the policy contracts were what was to be collected. Had the commissioners taken this view instead of the other, they would have compelled these compa-

nies to make an immediate readjustment of their business as a condition to being admitted as regular companies.

This attitude taken by the insurance commissioners was for the purpose of enabling the assessment associations which reorganised in this manner to readjust their old business more at leisure. It was the idea that they would thus work off their old business by means of surrenders, lapses and deaths, and particularly by means of rewriting it upon sound plans. Their position was not reprehensible under the circumstances, although its wisdom may be doubtful.

A very serious and unfortunate blunder, however, was generally made by the insurance departments in permitting the transfer of associations into the ranks of regular life insurance companies, in that with few exceptions they failed to charge against them as a special reserve liability the reserves for which they were liable according to the terms of their contracts. By this is meant not reserves which would be necessary to carry out the contracts, but reserves which they had specifically promised in the policies that they would set aside and accumulate. In many cases the policies or the constitution or by-laws bound the association to set aside a certain portion of the premiums received, as a trust fund under conditions clearly specified, which fund could properly be drawn upon only to meet

death losses, and for that purpose only when the conditions specified were fulfilled. Manifestly, this fund constituted a liability. The setting up of a standard for measuring the liabilities of life insurance companies under their ordinary contract obligations does not excuse an insurance commissioner for failing to charge against the company or association any further liability which it may have incurred by reason of its own express promise. Notwithstanding which, almost without exception, the commissioners by their laxity in this regard virtually authorised the associations to use these trust funds for their own purposes, treating the same as general surplus, whereas in all cases the laws in force when the same were created, as well as the conditions of the contract itself, strictly provided that these funds could not be used for expenses. The commissioners of other States than that of the company's domicile, accepting the certificate of valuation by the commissioners of the home State, also set their seal of approval upon this conduct, sometimes with knowledge and sometimes unconsciously.

The legislature of one State, Massachusetts, enacted a special law, requiring all the existing business assessment associations then doing business in the State, whether domiciled there or not, to cease issuing assessment policies, and authorising them to begin issuing level premium

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policies. This act provided definitely for the valuation of the assessment insurance as renewable policies of one-year term insurance except when the same were limited payment policies, which are valued as the same forms of policies in legal reserve companies. The Massachusetts law also provided that these reorganised assessment companies should have the privilege for a limited time, originally five years and afterward extended to eight years, of having their policies valued as term insurance the first year, followed by a level premium insurance, beginning at the end of that year and at an age one year higher. This privilege is not granted in that State to any other companies.

The wisest managers of the assessment associations which changed into legal reserve companies proceeded more or less promptly to exchange for their outstanding assessment policies, policies upon the usual level premium plans by means of solicitation by agents. The new policies were sometimes placed at the rates for the full attained ages of the insured, some allowance being made for the accumulation of surplus, if any, upon the original policy. As a means of encouraging this transfer, sometimes the rates of premium offered in making these exchanges contained a materially smaller expense charge than was ordinarily the case.

In many instances, however, the policyholder

was offered a level premium policy with a rate as of his age at entry. This could be done, of course, only provided there was paid in cash or charged against the policy the reserve required to be in hand at the date of change. If charged, interest would require to be paid upon the lien. In some cases the companies consented that this should itself be charged, instead of being paid annually in cash, the intention being to compound the same. The wisdom of this is doubtful under all circumstances. In many cases the accumulation would soon amount to more than the reserve, and, consequently, the plan is really impracticable. There is also doubt as to its legality.

To this system of dating back the new policy and giving the rate for the age at entry, when fairly carried out, there could be no objection. In practice, however, it frequently occurred that the insured was not fully advised that such a charge was to be made, and this is particularly likely to be true when the interest is to be compounded instead of paid. Often the first inkling of the true situation that anybody interested in the policy received was when the insured died and the beneficiary had a much smaller amount than the face of the policy offered to her. When correctly and truthfully represented to the insured, this plan caused him to be placed in exactly the same position as if he had originally

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taken a level premium policy, and, after the lapse of a period equal to that of his membership, had borrowed back the reserve.

A western company, under the advice, it is said, of the actuary of the department of its home State and certainly without any interference on the part of the department, made use of a device of this nature which was much less excusable. Before it reorganised into a regular legal reserve company this association, which had charged a stipulated premium considerably in excess of the current cost of the insurance, held a large amount of funds under trust agreements with the policyholders according to their contracts and its own constitution and by-laws. Agents were sent out to induce these policyholders to change over to a legal reserve plan on the following basis, to-wit:

A twenty-payment policy was offered, dated back to the original date of entry and age at entry. Against this was charged a lien, not merely for the reserve required, but for a large amount in excess of the reserve. An addition, to pay for a temporary insurance for the remaining years of the limited payment period, was made to the premium for the policy, so that in case of death during that period the lien would be cancelled and the full face of the policy would be payable. The lien also was to accumulate at compound interest. All of this care to prevent

the insured from realising that there was a charge against his policy was tantamount to an instruction to the agent to leave him as much in the dark as possible. The existing funds in the hands of the company belonging to the policy were not distributed to it either in reduction of payment of premium or otherwise, but a large surplus was estimated to accumulate by the end of the period, equalling or exceeding the largest surplus returns on similar policies in the leading companies of the country, which policies had actually been kept in force for the full period of twenty years, although these policies might now only have half that time to run or thereabout.

It might be that the members were in some cases advised that the commuted back premiums which were charged as a lien would be deducted from the surplus when settlement was made, but there is reason to think that even this was not always explained with care. And they were not advised usually what would happen if the surplus was not enough to cover the debt.

The effect of this scheme was to release to the company presumably the policyholder's interest in the accumulated funds and at the same time to charge his policy with more than the reserve at the time, thus enabling the company to put this lien instead of the increase of reserve for two or three years thereafter and to appropriate the premiums received to expense and cur-

rent mortuary purposes. This outrageous proceeding was exposed in the insurance press and most other companies have been careful not to imitate it too closely. It has never been rebuked officially, however, to this day by any commissioner, and under its operation the company in question and some others have managed, despite the payment of an extravagant amount for expenses, to hold an apparently handsome surplus, which in fact ought long ago to have been regarded a sacred reserve.

Some business assessment associations have by resolution of the members, voting in person or by proxy, or by resolution of the board of directors, changed all their policies into whole life level premium policies, charging them with liens for the amount of the reserve. Since the companies were mutual and the contract was between one member and his fellow members, this was regarded lawful.

In one case at least the legislature passed a law requiring such a change and directly stipulating that the reserve should be charged. This law made no provision for the application of any funds already credited to the policies, in reduction of the charge or otherwise. It was interpreted to warrant the transfer of the funds on hand to the general surplus, and to authorise their use for purposes other than those named in the original agreements. The law provided for

a notice to the members affected, but a statement of what had been done, which must have confused, more than enlightened, and not a plain statement of precisely what the beneficiary would receive, was sent to the members. In consequence most frequently the first actual notice of the lien which anybody interested in the policy received was when death took place and a claim was made.

The device of reinsuring the concern in another association or company has also been made use of. In such cases, usually liens for at least the amounts of the reserves have been charged by the contract of reinsurance. And often all the actual assets were transferred unlawfully to the retiring managers as a commission. The results have not been so good, on the whole, as in cases of reorganisation of the association without losing its identity.

The foregoing is a brief statement of the various modes of reorganisation and readjustment which have been adopted by business assessment associations. Some of them have been measurably successful and the companies are already upon a sound basis, with all their old business readjusted, though suffering somewhat as a result of the dissatisfaction of members with the change. Some of the plans employed involved great and unnecessary hardship for the members and opened the door for abuses

which ought to have been guarded against. Aside from the occasional features of concealment and malversation, there is not very much to criticise. The conditions were hard and called for severe remedies.

CHAPTER XXX

THE READJUSTMENT OF RATES IN FRATERNAL INSURANCE ORDERS

THE necessity for the abandonment of their assessment plans of operation was not borne in upon the fraternal beneficiary societies until some time after the same lesson had been learned by the business assessment associations. This was due in large part to their much more rapid and persistent growth and to the sentiment of fraternity which bound their members together, but the principal cause was the low expense rate at which their affairs were conducted. This feature caused the pressure upon the younger members, in the form of a higher price for the protection than the fair cost of the same, to be materially postponed, for a large part of what was saved in the expense cost could, of course, be offset by increased mortality cost, due to the faults of the plan, before comparison with insurance in other institutions would show that the member was being materially discriminated against.

In several of the societies, some of which have readjusted their rates successfully and are now upon an adequate rate basis, readjustment was deferred, in point of fact, until the members recently admitted were paying currently as much net for their insurance, to protect which no reserve was being put up, as was necessary to carry level rate old line insurance with adequate reserves. In other words, that portion of their contributions which should have been set aside in order to maintain their rates of premium level throughout life was being withdrawn currently in order to cover the deficiencies in the payments of the older members. This was, however, about as far as the delay could be carried, under any circumstances, and in more than one society it would not have been possible to delay so long.

Before the need for a radical change of plan was apprehended by the managers of the fraternities one of the larger of them had already been compelled to dissolve in consequence of a temporising policy which resulted in changes that were not a material improvement over the old plans, and another of the older and larger societies had drifted so far toward disaster that it was not possible to rescue it, and all that could be done was to watch its slow but sure progress toward dissolution, which, though deferred, came at last within the past year.

The failure of the first-mentioned society and the irretrievable condition of the second were not lost upon the officers and representatives of the other orders, nor were the results of the re-organisations and attempts at reorganisation of the business assessment associations. In consequence, when the fraternal societies were reluctantly making ready for changes, they had before them many examples indicating what to choose and what to avoid.

Fortunately, also, at the very outset one society attempted to relieve itself by reducing the amount of benefit payable in event of death. This reduction did not take the form of a lien charged against the certificate for the amount of the reserve, but was a definite reduction of the amount payable. The purpose, however, was substantially the same as when a lien is charged, viz., to relieve the society from a part of its obligation in order to enable it to fulfill the remainder. At the same time it was perhaps not so defensible, nor the reason for it so comprehensible. The right to reduce the amount of the benefit was contested and the Court of Appeals of an important State decided that fraternal beneficiary societies have no power to reduce the benefit payable upon the death of a member below the amount stipulated in his certificate and in the laws of the society at the time the certificate was issued. It should be explained, however,

that this does not mean that a society must necessarily pay its certificate in full for the maximum amount. On the other hand, in case its constitution and by-laws provide that the proceeds of one assessment only is to be paid, but not exceeding the maximum amount, of course this provision governs, although the proceeds of one assessment may be much less than the maximum sum.

It is by no means certain, of course, that this decision would be held to apply to the charging of a lien for the reserve, even though that were done without the express consent of the member and by the action of the representative body; but the fact that its application is doubtful, and the further fact that this method has caused much dissatisfaction when employed by business assessment associations, combined to deter the fraternal societies from attempting it, although it is a device which offers the distinct advantage, according to the opinions of men who would call themselves prudent, that it does not apprise the members so bluntly and, therefore, offensively of the fact that there is a serious change in their payments and benefits, as does a sharp increase in the payments required. Perhaps in fraternal societies where, before a reform can be instituted, it must be discussed by representatives of local bodies, this argument did not seem to have the urgency and cogency as in business assess-

ment associations, where agitation could perhaps be wholly avoided by employing some scheme which did not alter the payment to be made by the member, although it might not be so sound or so satisfactory as one which would have advised all members precisely what was the nature of the change.

At first the tendency of the fraternal societies in changing their plans was to stick to their programme of furnishing current cost protection. In other words, they were indisposed to change to level premium plans for two reasons: first, they had from the beginning decried the level premium plan, which was known among them by the hated name of "old line"; and, second, they had preached both that a mathematical reserve is unnecessary, and also that fraternal societies could not safely accumulate one, which would mean the downfall of the fraternal system. Therefore, the first readjustments were made on lines which called for the accumulation of but a small reserve or none at all, and the furnishing of protection on some current cost basis more nearly consonant with sound principles than the former plans. Thus some of them caused to be introduced step-rate plans—that is, term insurance with the rate advancing either every year or every five years. In most cases these societies did not make any provision either for continuing the advance throughout life or

for maintaining a fixed premium after a certain age. In some cases, however, they did make such a provision by means of the collection of a small reserve contribution with the premiums collected prior to attaining that age. Three systems of this nature have been adopted as follows:

First, a system by which the increasing rate prior to the age at which the rate is to become fixed, is the same without regard to the age at entry; that is to say, the reserve contribution, as well as the premium for the current risk, advances each year. Under this system, which may be rigidly scientific, if properly computed, of course the amount of reduction of the rate to be charged after attaining the age named, will differ according as one was admitted at one age or another, because the amount of reserve accumulated will differ.

Second, a system under which, likewise, the reserve contribution increases as does the premium to cover the current risk, but under which, notwithstanding, it is attempted to give the same rate to all the members after reaching the age designated without regard to their contributions to the reserve; thus, in effect, for instance, requiring the member who contributes from age 20 to age 45 and after age 45 contributes as much as a member admitted at 45, to be satisfied with the same rate from, say, age 60 as the mem-

ber admitted at 45, although the value of his contributions to the reserve may be two or three times as much. The unfairness of this system is manifest, and that unfairness also implies unsoundness. It puts upon persons admitted at the younger ages a burden as compared with persons admitted at older ages, which will be borne only so long as the facts are not clearly discerned by them, and, therefore, the applicants for membership are unable to discriminate and exercise selection in the matter. In the course of time, however, this selection will come into operation and the scheme must necessarily fail, only persons at the higher ages seeking admission and younger members withdrawing. It can be made fair only by collecting no reserve contribution up to the highest age of admission, so that from that point all the members will begin their contributions to reserve.

Third, a system under which a level contribution to reserve, fixed according to age at entry, is superimposed upon an increasing premium to cover the current risk, this level contribution to reserve being so computed for age at entry as to produce the same amount at, for instance, age 60, and, therefore, to reduce the net level premium which would otherwise be required from age 60 throughout life by the same amount without regard to the age of the member upon admission. Theoretically, this plan is sound,

and practically it can be operated, though not without difficulties. The chief embarrassment will be found in the application of a system of adjusting the collections to the actual cost, as by passing assessments when the funds on hand enable the society to do so. This may be overcome, however, by care in keeping the accounts, and also particularly in drawing the by-laws under which the scheme is operated.

Under these plans it will be observed, however, the society must accumulate reserves, and as compared with the level premium plan, the distinction is one of degree and not one of principle. It should be noted also that in order that even the most scientific plan of this nature may work satisfactorily it is necessary that the trust character of the reserves accumulated should be recognised, and that in particular under no circumstances should the reserves for the purpose of maintaining premiums level beyond, say, age 60 be drawn upon in order to meet death losses at other ages. In other words, frequent valuations to determine the reserve required are necessary or the contributions to reserve must be religiously set aside for that purpose, or both.

The experiment of readjusting by offering a level premium estimated to be sufficient on the basis of certain lapse expectations has also been made in fraternal life insurance on a large scale. The society which first undertook this and which

is still its most important exemplar, is distinguished also because of the fact that it is the first fraternal insurance order to collect funds to a large amount. Its initiative in this regard, followed by a successful experience both in the field and in holding its members, undoubtedly had a great deal of influence in causing the removal of the objections to the accumulation of a reserve, which were so deep-seated in the minds of the officers and the representatives in fraternal societies. At the same time it cannot be said that this society has demonstrated the success of its plan. There have been two valuations, as required by the laws of Great Britain, in which country it is also operating, and these show that as compared with the reserves required on the ordinary basis, there is a very large deficiency. The same actuary certifies that upon certain assumptions as to lapsation, which on the face of his statement do not appear to be reasonable, the reserves brought out are less than the accumulated funds; but until there is a demonstration that the experience of the society is within the assumptions made in computing such reserves and that the ratios employed are unquestionably reliable, judgment must necessarily be suspended as to whether the plan is succeeding or not.

In more recent years there has been a strong tendency in the readjustment of the rates of

these societies toward the introduction of a level premium plan. This was to have been expected, and is in accordance with the experience in Great Britain likewise, where reorganisation of the friendly societies was effected in almost every case upon the basis of level rates of premium. With very rare exceptions, also, the societies have not attempted to take into account the possible influence of lapses or discontinuances in computing their new rates of premium, and in the few cases in which they have taken this into account they have done so in a haphazard manner, so that their computations and the rates which they have made cannot be regarded in any sense as demonstrated to be adequate. Several of them, however, have adopted rates which, according to their mortality experience, may be relied upon as sufficient.

In most of the recent readjustments the rates have been put into effect at the full attained ages of the members, with the exceptions noted hereinafter. In some of the organisations mentioned, however, they have been put into effect as of the ages at entry, and then no provision, or an obviously insufficient provision, was made to cover the missing reserves which would have accumulated, had the insurance actually been in force at level premiums from the age at entry. This is, perhaps, one of the most reprehensible departures from correct principles that has put

in an appearance in these readjustments, because it gives a semblance of soundness in the sufficiency of premiums demanded for new entrants, while, in point of fact, it leaves the institution insolvent until another readjustment is made. Of course, it is not possible that a fraternal society when it finds it necessary to readjust its rates, should have on hand out of the past contributions of its members a sufficient amount to make good its reserves, on the basis of giving them all the rates at ages of entry. If it had on hand this reserve, it would be because the rates in the past have been sufficient, and, therefore, no readjustment would be required. In other words, that a readjustment is necessary indicates that this reserve is not on hand.

The exigencies of the situation, however, usually call for some concession to members in various advanced ages, in consequence of which such a man is usually given the rate, not at his full attained age, but at some age under that of his full attained age. In one of the societies which readjusted its rates, it was found that the funds on hand would cover the reserves on the policies of members at attained ages beyond 70, if they were all given the rate for the age of 70; this was done accordingly. In some other societies which have readjusted, advantage was taken of the fact that the mortality at the younger ages was considerably under that exhibited by

the standard tables, and in consequence some part or all of this advantage was drawn upon in the form of a fraternal assessment or a guarantee fund assessment upon the younger members only, to make good the deficiency in reserves upon the older members, who were thereby given rates at age 65, age 60, or even in one instance age 55. The complete success of these methods of meeting the conditions is not yet demonstrated; but sufficient is known to warrant the statement that the chief menace to their success has been the dissatisfaction of the older members, notwithstanding these liberal provisions for their relief, which has had a much more marked influence upon the younger members in causing them to discontinue, than any dissatisfaction with the rates of premium required to be paid by them.

A very important question in connection with the readjustment of rates in these societies has to do with the mortality table to be employed. At first blush this seems to the tyro in actuarial science a very simple matter. He has at hand standard tables which are used by the State departments in computing the reserves of legal reserve companies, and are also used by the companies themselves in computing their rates of premiums, surrender values, etc. If the argument is presented that these tables are redundant at the younger ages, *i. e.*, that they repre-

sent a higher mortality experience than a thoroughly well-conducted society, operating among persons not subject to extra hazards because of occupations or otherwise, may fairly expect to experience, which is true, the same tyro will, doubtless, turn to the National Fraternal Congress Table of mortality, which was deduced from the experience of two or three of the societies and has been repeatedly endorsed by the National Fraternal Congress and is its minimum standard for adequate rates in new fraternal societies.

There will be found to be many objections to either of these courses. In the first place, owing to the classes of persons admitted, their occupations, habits, race and other characteristics, the mortality in each society is more or less distinctive. The novice, if he were to apply one of the tables mentioned, might easily find, as has more than once been the case, that the mortality of the particular society was already in excess of his table. On the other hand, in some cases he might find that the actual mortality was lower even than according to the National Fraternal Congress Table or that it was somewhere between the rates in that table and in the standard tables. He will also discover that there is a strong tendency on the part of the representatives and the officers in these societies to readjust the rates on the basis that precisely twelve monthly as-

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sessments per year are to be brought about without producing a surplus or a deficiency. If he is entirely new at the work he may even fall into the error of supposing that this may be accomplished; but although his knowledge be sufficient to cause him to refuse his assent to this proposition, he cannot fail to be impressed that the whole spirit of the fraternal insurance system is that no larger rate should be required to be paid than is believed to be necessary, and that the small surplus which such a rate, conservatively computed, ought to produce, be employed in passing assessments whenever the funds are sufficient to do so. In other words, he will discover that the disposition is not to increase the rates more than is believed to be absolutely necessary, and this is but fair, taking into account that the members have in the past supposed that they have the same protection at the low rate which they have been paying and which has proved to be wholly inadequate. To pass to redundant rates would be too great a change.

All of these considerations signify that a mortality table, deduced from the society's own experience, if it is large enough and of sufficient duration to afford reliable data, is to be preferred to all other standards. At this point, however, it is necessary to give voice to a warning. The aggregate mortality experience of practically every fraternal society is so affected by the

years of exposure of lives within the first four or five years after their admission into the society and just after passing the medical examination, that it cannot be relied upon as a correct guide for the experience which will almost certainly follow a readjustment, during which it should not be expected, although it may be hoped for, that there will be any considerable accession of new members, and it must be expected that there will be large defections on the part of existing members. The defections on the part of existing members will probably mean sufficient adverse selection to offset the favourable selection in the mortality on account of the members yet remaining within the first five years of their memberships, and therefore it is not reasonable to expect that the mortality will be more favourable than the ultimate experience, *i. e.*, the experience upon lives insured in the society after the first five years or more of their insurance has elapsed. In other words, for the purpose of computing the required rates of premium, it is necessary that there be made from the experience of the society, if possible, what is known as an ultimate table of mortality.

Even in these ultimate tables the experiences of different societies, composed of members of entirely different classes, distinguished in various respects, have been widely different, extending from a table as low or lower than the Na-

tional Fraternal Congress Table at many ages, to a table materially higher at many ages than the so-called standard tables. It follows, therefore, that before anything in the matter of readjustment of rates should be undertaken, a thorough-going investigation of the society's experience should be made. If that experience is not extensive enough, either in numbers of lives exposed or in duration of insurances, to enable an entire mortality table to be deduced, the data should, notwithstanding, be cast into such form as to give as good an indication as possible of the probable mortality, and by means of this some existing table may be selected to be employed either with suitable modifications or without modification, as the case may require.

In recent years no fraternal society has undertaken a readjustment of its rates merely by leaving its old members on the old and faulty plans, while applying correct rates to new members. This glaring blunder of the business assessment associations has happily been avoided. In consequence, the full shock of the readjustments has usually been felt by the entire membership. In some cases there has been a loss of membership of from 25 per cent. to as high as 40 per cent.; but if the new rates are in fact adequate and if the society gets upon a genuinely sound and solvent basis, this does not matter much.

While the plan of giving rates at age at entry and charging liens for the reserve has not been employed as a matter of compulsion by any fraternal beneficiary society, the privilege is granted by some of them that a member may go back to his rate at age at entry by consenting to have such a lien charged and to pay interest upon the same. It has been found, however, at the most, that not more than one member in fifteen desires to make such a change. By far the majority have consented to pay the rate at the full attained age.

That the changes from assessment plans to sound plans has so far taken place without a large number of failures is a remarkable circumstance well worthy of mention. The changes, even when very extensively affecting a vast number of people, have frequently been carried into effect with a small diminution of the membership, which gave way also in a short time to an advance in membership, confidence being soon re-established. The American people have much to blush for, that they ever permitted the aberration of assessmentism to sweep over the country, but they have also good reason to congratulate themselves that the consequences have not been more serious.

CHAPTER XXXI.

STATE AND NATIONAL SUPERVISION

THE supervision of the life insurance business and of life insurance companies by State and National authorities has taken various forms in different countries. Thus, in Great Britain, there was stubborn resistance to the introduction of any form of supervision whatever. Life insurance companies were organised there under the ordinary stock company laws, with as large an authorised capital and as small a part of it paid in as they desired. They also reported their entire assets, beyond liabilities actually accrued, as surplus, or otherwise valued their policies on any basis they chose, including counting the gross premiums receivable in future as wholly available to offset future policy liabilities. In consequence, the most misleading balance sheets were put forth, with sometimes the present value of future premiums producing so large a surplus that it appeared that all the resources presently possessed by the company were surplus, with a considerable margin above that.

Notwithstanding the stubborn disinclination of the true Briton to submit to State regulation and interference with his private business, this could not go on unchecked forever. Sooner or later actual commercial insolvency, in the sense that the companies were unable to meet their present, matured liabilities, overtook several of them and there was a great scandal about it. Charles Dickens, the eminent novelist, made the hardships incurred by the unsuspecting who entrusted their hard earnings to these concerns, the principal motive in one of his most important novels. The rising young statesman of that day, who afterward became known as "the great commoner" of his generation, Gladstone, also seized upon these evils as a target for his philippics in the House of Commons. His proposal was that the life companies should be subjected to a very strict system of supervision, including official valuation of their policies, and that in addition to this there should be established a State system of insurance, operated through the post-offices, which by its competition would compel the companies to charge fair rates of premium.

In the face of bitter opposition he succeeded in carrying these measures, with some modifications. The provision for supervision was altered, however, so that in the main requirements are only as follows, viz.: No new company can

be established until it has deposited with the Board of Trade \$100,000 in acceptable securities as stipulated in the act, which cannot be withdrawn until the company has accumulated resources from its premiums in excess of this amount. An annual report is required likewise, setting forth the income and outgo and the resources and liabilities other than reserves. At least every five years a valuation of the policies is required, according to a table of mortality and a rate of interest to be selected by the company and to be specified in the returns; much of the valuation data must be furnished also, and, in case the valuation is not by net premiums, then the amount of deduction from the gross premiums to cover future expenses must be distinctly specified. In addition to this, it is provided that by appeal to the courts a company can be wound up when found insolvent on the basis of reserves according to what is known in the United States as the Actuaries' Table and 4 per cent. interest; but this last-mentioned provision has rarely been availed of.

Although these simple requirements appear to an American, accustomed to a much stricter system of supervision, to be weak and futile, they were sufficient together with the popular outcry against mismanagement to check the depredations of scoundrels and schemers, and the British life insurance companies have, on the whole,

enjoyed a very high reputation since that time for good management, sound methods and undoubted solvency.

There is, notwithstanding, nothing to prevent assessment associations from qualifying under this law. The result was that a large American association entered Great Britain, making the required deposit, which it also had a right to take down soon afterward, and conducted an assessment life insurance business there for many years without interference on the part of the authorities and under precisely the same law under which the regular life insurance companies operated. After this weakness in supervision, which really amounted to complicity, had permitted the concern to carry on the business, there was recently enforced, through a decision confirmed by the House of Lords, a construction of the contracts of the company which, had it been applied to any of its valuations, would have shown it to be insolvent, or, more correctly, it was adjudged that the company had held out its policies to be of that character, though they were not, and thereby had committed a fraud. This fraud, if fraud it was, had been perpetrated day after day under the very nose of the authorities and with their full knowledge, but without interference, and the decision of the courts was manifestly unfair unless it be taken as an indictment of the

laws of the country, as well as an indictment of the company itself. It forbade, in effect, the re-organisation of the association upon a sound basis, and is in marked contrast with the consideration with which certain British societies of the same general type were treated at an earlier date, when they were compelled to undergo re-organisation.

Yet more recently there has been a scandal likewise under the loose operation of the British form of supervision, because a certain trading company engaged in the tea business had promised promiscuously to pay pensions after the deaths of their husbands to women who purchased tea. This concern, after having built up an immense business in this manner, was rather tardily required to qualify by the deposit of securities as a life insurance company. When it failed, shortly afterward, it was discovered that the present value of the pensions promised by it was far in excess of \$50,000,000, while the resources were less than one twenty-fifth that sum.

In addition to this, a fraternal society hailing from this side of the water has been doing business in Great Britain for some years, having qualified under the same act, and has filed two valuations of its policies, in both cases showing an enormous deficiency on a valuation of the usual sort, but asserting that this deficiency was turned into a surplus by selecting a form of val-

uation which assumes a heavy rate of lapse. This matter has been an open scandal in Great Britain for some time and shows clearly that the present laws for the supervision of life insurance companies are fatally defective and offer nothing like the protection that they ought to persons who purchase life insurance policies and annuities.

In the United States, as has been said, there has been gross neglect of requirements of solvency for assessment and fraternal societies, and as to regular insurance companies supervision has mainly been concerned in insisting that assets should be held, sufficient to assure the payment of the policies upon maturity beyond all question. While, of course, there is no such virtue in legislation as will effectually prevent the aggregate resources from falling below the aggregate liabilities, there is this virtue when reports and valuations are required each year, viz., that, unless the supervision is affected by collusion or utter incapacity, the existence of a deficiency will be discovered before it has become so large that the company is irretrievably ruined. In the last twenty-five years there have been many instances of this, and, indeed, since State supervision was introduced in the United States, the number of utter failures among regular life insurance companies, as distinguished from instances where reinsurance was effected, has been very small indeed.

While, in a more or less experimental fashion, life insurance supervision had been attempted in more than one State before the appointment of two commissioners of insurance in the State of Massachusetts, in 1858, this appointment, which brought Elizur Wright forward as one of the commissioners, may be regarded as virtually the starting point of supervision of life insurance in this country. What Elizur Wright did to introduce a proper system of net valuation as a test of solvency has already been related in these pages, and it is not necessary to do more than to refer to the same again. His selection of a mortality table fairly representing the actual experience of life insurance companies, his resolute championship of net valuation as against the valuation of gross premiums, and his insistence that no life insurance company should be permitted to do business that could not demonstrate its ability to carry out its contracts, soon placed the department of Massachusetts in a position of authority which has since been maintained constantly by the exceptional honesty and unswerving devotion to duty of his successors in office.

Supervision of life insurance companies was soon introduced in most of the other important States likewise, the State of New York being among the first. New York had for its first superintendent of insurance a man of the high-

est probity and of great ability, Hon. William Barnes, but, unfortunately, since that time, while the post has in several instances been filled by men of the highest character, both for ability and honesty, it has also several times been occupied by individuals concerning whom and their administration of this office it would not be possible to say anything good.

One of the duties of the officer to whom is entrusted the supervision of life insurance is the examination of the companies from time to time. In Massachusetts and in some other States, the department is required to make an examination at least once every three years or five years, as the case may be; but in other States examinations are made at the discretion of the commissioner or superintendent. The efficiency of supervision in a State may be judged by the frequency and thoroughness of the examinations of companies domiciled therein. Partly in consequence of neglect in this regard, it has now and then happened that companies by means of false reports to the home departments have been able to continue doing business for several years after they had become insolvent, and to hold themselves out to the public as solvent institutions, being provided with a certificate from the home department to that effect.

Originally, examinations were made in all cases at the expense of the company. Naturally,

this soon became a matter of much scandal. In the first place whenever venal legislators desired to provide for hangers-on, it was a simple matter, and frequently popular likewise, to order an examination of one or more insurance companies. In the second place, by means of these examinations, if there was anything to criticise, large amounts could be wrung from the companies in blackmail. During the earlier days of supervision there were many instances of both evils, and it became necessary, in order to prevent them, either to provide that the examination should be made at the expense of the State or that the cost of the same should be covered into the State treasury and the persons employed as examiners should be compensated by the State. Wherever the former method has been introduced there has been practically no complaint as to the continuance or the revival of the old evils, and under the latter system complaints have been infrequent.

Another form of abuse, however, perhaps ineradicable so long as there is not National supervision and State supervision continues, is the examination of companies of other States, which are licensed to do business in the State. These examinations are frequently undertaken without any good reason and merely for purposes of private emolument. Most frequently they are made by the wholesale, the examiners starting

out from home and making or pretending to make one examination after another, in each case charging for the expense of a railroad return trip and for hotel and other bills, and exacting a per diem which they really do nothing to earn.

This has been carried so far that one bold buccaneer actually invaded the home office of a company in Great Britain, presented his card, insisted on the privilege of examining the company, and for a very superficial glance at its books exacted the cost of his European trip. In this country the evil has been rampant, and yet there appears to be no way to extirpate it, so long as there is not a system of National supervision.

In the National Convention of State Insurance Commissioners and elsewhere it has been from time to time proposed that a rule be established that the certificate of the department of the company's home State be accepted in all cases, and that no examination be made or required other than by the department of the home State. It will never be possible to secure compliance with this ruling, so long as there is not an effectual system of National supervision, for the reason that the insurance department of a State is charged with the protection of the people of that State, and in all cases, if the administration of the department of another State is known to be corrupt or to be improperly influenced by politi-

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cal considerations, so that its certificate as to a particular company is of doubtful value, it becomes the duty of the State insurance commissioner or superintendent to refuse to accept its certificate and to insist upon an independent investigation of the company's affairs. It has been suggested that in such cases he should first ask the department of the home State to make an examination, but it is manifest that in many instances he would feel that such an examination would be as worthless as the certificate already in his hands.

Another evil which has sprung up in connection with these examinations has been the employment of consulting actuaries not connected with the State department, but having a connection with the company examined. It seems almost incredible that the impropriety of a consulting actuary, known to be retained by a particular company, being permitted to make an examination of that company for a State department, should not be so clear that by no possibility could it have been consented to by the department, the public or even the actuary himself. Yet notoriously this has been done in more than one instance. Even at the present time the sentiment against it is not so strong that it would not be possible for it to be repeated. It would be well perhaps if every department were to provide itself with an actuary and examiners

capable of making such investigations, but in any event actuaries should not be employed who are also employed by the company undergoing investigation.

A yet more serious evil, however, within the departments themselves has been the connection, in a consulting capacity, of department actuaries with companies which were subject to their supervision and which upon occasion they examined. In several instances, partly as a consequence of this, no doubt, reprehensible practices have been permitted to spring up until they have become a public scandal. The "investment bond" business, to which reference has already been made in these pages, was fostered by the connivance of certain department actuaries who were also connected with the companies as consultants or at various times did work for them in that capacity.

Another evil has been the variations in the rulings of the commissioners of the same State from time to time and of the commissioners of different States at all times. At one period in the history of life insurance great and undue laxity in the matter of accepting advances to agents, commuted commissions, furniture and fixtures and other items as available assets, followed by sudden and undue severity, which cut out all or practically all of these allowances, played an important part in causing the ruin of many com-

panies, which would not otherwise have been compelled to go to the wall, but might have been preserved permanently. In recent years the reversal of the practice of one of the smaller States in the matter of accepting valuations on a preliminary term basis, caused the downfall and reinsurance of a small but perfectly solvent life insurance company domiciled in that State. The new ruling was also so far from being justified that it was reversed by the unanimous vote of the judges of the Supreme Court of the State, but too late to save the company. In all cases where the companies depend upon rulings of departments, therefore, they are more or less in danger. It would be well if these rulings could be given such authority and weight that, once made, they would not and could not be overthrown, but would stand as precedents until after a full hearing, similar to a trial in court, they have been adjudged erroneous. Or perhaps it would be better still if the companies were everywhere permitted to appeal to the courts. This they are able to do in some States, and the ruling last referred to was set aside by the Supreme Court of the State upon the appeal of one of the companies aggrieved. But in some States, notably Massachusetts, the ruling of the commissioner is final until he has himself reversed it, unless it can be proved that he has wilfully abused his discretion.

There is also a want of uniformity in the laws of the various States, which the commissioners, meeting in convention, have, so far without complete success, endeavoured to obviate by making recommendations for legislation in the different States so as to bring about uniformity. This certainly is very much to be desired, but is probably hopeless, so long as the matter is in the hands of the legislators of forty different States. In other words, we shall probably never have uniform laws regulating life insurance throughout the country until National supervision has been introduced. Life insurance interests, as a whole, are warmly favourable to National supervision on the following grounds, viz.:

First, it would go a long way toward securing uniform regulation and supervision of life insurance companies.

Second, reports to the National department and examinations by it would entitle a company to admission to all the States.

Third, discrimination on the part of a State in taxation against companies of other States would probably not be permitted.

Fourth, the certificates of the National department of insurance would have much greater weight in foreign countries.

Fifth, if insurance were directly under the supervision of the National government the Federal authorities would be in a better position to

protect the interests of American life insurance companies abroad.

Sixth, probably in the course of time State supervision, with its petty exactions, its possibilities of blackmail and extortion, and its forty separate establishments with their large expenses, would pass away.

Just how much opposition could be mustered against the proposal to establish a system of National supervision it is not easy to estimate, for the reason that up to the present time the impracticability of the scheme has prevented the opposition from showing its strength. The plan is understood to be favoured by the present administration, which indeed has made a start in that direction, through certain inquiries under the direction of the Department of Commerce and Labour. But an obstacle which seems to be insuperable is that many years ago the Supreme Court of the United States decided in a famous case entitled "Paul vs. Virginia," that insurance is not commerce, and this decision has been confirmed by repeated adjudications since that time. It is clear, therefore, that unless this can be reversed the supervision of insurance as a part of inter-state commerce cannot be assumed by the National government. There is no reasonable doubt that insurance nowadays, whatever may have been the case many years ago, is not merely a part of the commerce of the coun-

try, but is also a most important part; but decisions of the Supreme Court of the United States are very stubborn things, and whether the plain logic of facts would suffice to cause that court to reverse its previous attitude in this matter is very doubtful. In any event, no attempt has so far been made to cause the question to come up for a rehearing, and, until this has been done, or, as an alternative, the Constitution itself has been amended, it is idle to talk of National supervision.

CHAPTER XXXII

THE ANNUAL STATEMENT

THE following is a copy of the form of the life insurance statement to the insurance department that is usually given to the public:

ANNUAL STATEMENT.

Income—

First year's premiums on original policies without deduction for commissions or other expenses, less \$..... for first year's reinsurance.....	\$
Surrender values applied to pay first year's premiums.....	\$

Total first year's premiums on original policies.....	\$
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Dividends applied to purchase paid-up additions and annuities.....	\$
Consideration for original annuities involving life contingencies...	\$

Consideration for supplementary contracts involving life contingencies.\$

Total new premiums.....\$

Renewal premiums without deduction for commissions or other expenses, less \$..... for reinsurance on renewals\$

Dividends applied to pay renewal premiums\$

Surrender values applied to pay renewal premiums.....\$

Renewal premiums for deferred annuities\$

Total renewal premiums.....\$

Total premium income.....\$

Consideration for supplementary contracts not involving life contingencies\$

Interest on mortgage loans..\$

Interest on collateral loans..\$

Interest on bonds and dividends on stocks.....\$

Interest on policy loans or liens\$

Interest on other debts due the company.....\$

Rent\$

Total interest and rents.....\$

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Profit on sale or maturity of ledger
assets.....\$

Total income.....\$
Ledger assets December 31st.....\$

Total\$

Disbursements—

For death claims, \$....; ad-
ditions, \$....; total.....\$

For matured endowments,
\$....; additions, \$....;
total\$

Total amount paid for
death claims and ma-
tured endowments.....\$

For annuities involving life
contingencies\$

Surrender values paid in
cash\$

Surrender values applied to
pay new premiums.....\$

Surrender values applied to
pay renewal premiums....\$

Dividends paid to policyhold-
ers in cash.....\$

Dividends applied to pay re-
newal premiums.....\$

Dividends applied to purchase paid-up additions and annuities.....\$

Total paid policyholders.....\$

Paid for claims on supplementary contracts not involving life contingencies\$

Commissions and bonuses to agents (less commission on reinsurance) first year's premiums, \$....; renewal premiums, \$....; on annuities (original renewal), \$....; total....\$

Salaries and allowances for agencies, including managers, agents and clerks\$

Agency supervision, travelling and all other agency expenses.....\$

Medical examiner's fees, \$....; inspection of risks, \$....; total.....\$

Salaries and all other compensation of officers and home office employees\$

Rent\$

Advertising, \$....; printing and stationery, \$....; postage, \$....; total.\$

Legal expenses.....\$

Furniture and fixtures.....\$

Insurance, taxes, licenses and department fees.....\$

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Taxes on real estate.....	\$
Repairs and expenses (other than taxes) on real estate.....	\$
Loss on sale or maturity of ledger as- sets	\$
All other disbursements.....	\$
Total disbursements.....	\$
Balance	\$

Ledger Assets—

Book value of real estate.....	\$
Mortgage loans on real estate.....	\$
Collateral loans.....	\$
(Schedule of same.)	
Loans made to policyholders on this company's policies assigned as col- lateral	\$
Stocks and bonds owned by the com- pany	\$
(Schedule of same.)	
Deposited in trust companies and banks on interest.....	\$
Cash in office.....	\$
Suspense account.....	\$
Agents' balances.....	\$
Total ledger assets.....	\$

Non-Ledger Assets—

Interest due and accrued on mortgages	\$
--	----

Interest accrued on bonds
and stocks.....\$
Interest due and accrued on
collateral loans.....\$
Interest accrued on policy
loans or liens.....\$
Interest accrued on other as-
sets\$
Rents due and accrued on
company's property or
lease\$

Total\$

Market value of bonds and stocks over
book value.....\$

	New Business.	Renewals.
Gross premiums due and unreported...\$		\$
Gross deferred pre- miums\$		\$

Totals\$		\$
Deduct loading.....\$		\$

Totals\$		\$
----------------	--	----

Net amount of uncollected and de-
ferred premiums.....\$

Gross assets.....\$

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Deduct assets not admitted—

Suspense account.....\$

Agents' debit balances.....\$

Total \$

Total admitted assets.....\$

Liabilities—

Net present value of all the
outstanding policies in
force on the 31st day of
December, 1903, computed
by the Insurance Depart-
ment on the Combined and
American Experience Ta-
bles of Mortality, with 4
and $3\frac{1}{2}$ per cent. interest...\$

Same for reversionary ad-
ditions \$

Same for annuities.....\$

Total \$

Deduct net value of risks of
this company reinsured in
other solvent companies..\$

Net reserve.....\$

Present value of amounts not yet due
on supplementary contracts not in-
volving life contingencies.....\$

Death losses in process of
adjustment or adjusted
and not due.....\$

Death losses reported, no
proofs received.....\$

Matured endowments due
and unpaid.....\$

Death losses and other policy
claims resisted by the com-
pany\$

Annuity claims involving life
contingencies due and un-
paid\$

Total policy claims.....\$

Premiums paid in advance.....\$

Dividends or other profits due policy-
holders\$

Reserve for contingent guarantee
fund\$

Surplus to be apportioned in 19—....\$

Total liabilities.....\$

EXHIBIT OF POLICIES

NUMBER AND AMOUNT OF POLICIES AND ADDITIONS
CLASSIFIED, INCLUDING PAID-FOR
BUSINESS ONLY

Policies in force at the commencement of the
year, including additions:

	Number.	Amount.
Whole life policies....		\$
Endowment policies...		\$
All other policies (in- cluding return pre- mium additions)....		\$
Additions to policies by dividends		\$

New policies issued during the year:

	Number.	Amount.
Whole life policies....		\$
Endowment policies...		\$
All other policies (in- cluding return pre- mium additions)....		\$
Additions to policies by dividends		\$

Old policies revived during the year:

	Number.	Amount.
Whole life policies....		\$
Endowment policies...		\$
All other policies (including return premium additions)....		\$
Additions to policies by dividends		\$

Old policies increased:

	Number.	Amount.
Whole life policies....		\$
Endowment policies...		\$
All other policies (including return premium additions)....		\$

Transfers, deductions:

	Number.	Amount.
Whole life policies....		\$
Endowment policies...		\$
All other policies (including return premium additions)....		\$

Transfers, additions:

	Number.	Amount.
Whole life policies....		\$
Endowment policies.,,		\$

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	Number.	Amount.
All other policies (including return premium additions)		\$
Totals after transfers		\$
Deduct policies decreased and ceased to be in force		\$
Total policies in force at the end of the year		\$

Policies in force at the end of the year, including additions:

	Number.	Amount.
Whole life policies		\$
Endowment policies		\$
All other policies (including return premium additions)		\$
Reversionary additions		\$
Total policies in force at the end of the year		\$

Policies which have ceased to be in force during the year, with the mode of their termination:

	Number.	Amount.
Terminated by death . .		\$
By maturity (endowments)		\$

	Number.	Amount.
By expiry (term).....		\$
By surrender.....		\$
By lapse.....		\$
By decrease.....		\$

Totals		\$
--------------	--	----

Annuities in force December 31st, 19—		\$
--	--	----

BUSINESS IN NEW YORK.

On the lives of citizens of New York:

	Number.	Amount.
Policies in force De- cember 31st, 19—...		\$
Policies issued during 19—		\$

Total		\$
-------------	--	----

Deduct policies ceased to be in force dur- ing 19—.....		\$
---	--	----

Policies in force in New York Dec. 31st, 19—.		\$
--	--	----

Losses and claims un- paid Dec. 31st, 19—..		\$
--	--	----

Losses and claims in- curred during 19—..		\$
--	--	----

Total		\$
-------------	--	----

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	Number.	Amount.
Losses and claims on policies in New York paid during 19—....		\$
Losses and claims un- paid Dec. 31st, 19—..		\$
Premiums collected or secured in New York in cash and notes or credits during 19—, without any deduc- tion for losses, divi- dends, commissions or other expenses...		\$

In the income the items of "surrender values" and "dividends" *applied* consist of moneys not actually paid out and received again; but these amounts are included in the surrender values and dividends paid, in order to show the total, and so are entered here again as a part of the income in order to balance the account.

The "consideration for supplementary contracts," appearing twice in the income, is also not an actual receipt; when a policy which is to be paid in instalments, or by an annuity, matures by death or otherwise, the total present value of the benefits is entered as a death claim or matured endowment, and then this item for the same amount is entered as an offset. When the

benefit is payable as an annuity the present value is entered as "consideration for supplementary contracts involving life contingencies," and when in instalments for a fixed period only, as "consideration for supplementary contracts not involving life contingencies."

The careful separation of first-year and renewal premiums and the separate statement of interest totals by classes of securities is an excellent feature of this statement form, enabling the financial management to be judged pretty severely.

The item of "profit on sale or maturity of ledger assets" represents the gains already actually realised and reduced to possession. The "excess of market values over book values" of the securities still held is not included in this.

In considering a company's statement it is well to remember that the three items of "dividends" in the disbursements will give but a very imperfect and misleading basis for comparison as to returns to policyholders, because the dividend systems, and especially the dividend periods, differ widely, so that one company may be paying a large amount in deferred dividends, another nothing at all because no policies have completed their periods, and yet another may be paying an annual dividend to each of its policies.

What is required, really, is an addition to the

statement blank, calling for specimens of the annual and deferred dividends at selected ages for all plans and durations paid during the preceding year or accumulated to date to the provisional or absolute credit of the policies. The insured will never be able to judge discriminately as to the comparative merits of individual companies and their policies until this is required. It speaks much for the patience, but little for the wisdom, of Americans that this has been delayed so long and is not yet here. British companies have been called upon to make similar reports for thirty-five years past. If it were introduced here it would result in competition in "returns to policyholders" instead of a race for bigness, for it would powerfully stimulate the efforts of companies to serve their patrons and would greatly reduce the preliminary expense incurred to obtain new business, which now unquestionably causes policyholders to receive lower dividends in most companies than they would receive if nothing at all were paid to secure new business, and only that amount were transacted which would come in without solicitation.

The items of commissions and bonuses to agents, agency salaries and allowances and agency supervision expenses are nearly wholly charges for obtaining new business. It is credibly reported that the experience of more than

one company shows that business upon which no renewal commission is paid, renews as well as that upon which such commission is allowed. Most, if not all, of this item is virtually deferred compensation for writing new business and is frequently paid in addition to an immediate compensation in first year's commissions that is itself excessive.

Under the item of "legal expenses" unquestionably items of expenditure are sometimes included which would not look well if put into plain print. Life insurance companies are every now and then made the victims of legislative "strikes," as well as of departmental raids.

An item which sometimes appears in life insurance companies' statements also is "commuted commissions." This means sums of money paid to agents in consideration of their releasing their claims for commissions upon renewal premiums.

Observe that the form of statement is of "income" and "disbursements," and not "receipts" and "disbursements." The reason for this is that there would be included in receipts, of course, the repayments of investments, and in disbursements the payments for investments. The first of these does not really belong in "income" account, because it does not signify that the company has any more assets on account of the change than it had before, and the latter

likewise is not, strictly speaking, a disbursement. Yet accountants have found the name "income" to define what they really mean to set forth, but have so far not replaced "disbursements" by a better name, which would signify that the money has actually been expended. Of course, the word "expenditures" would have this meaning; but, unfortunately, it is too nearly like "expenses," and might be confused with the latter by a careless reader. It is sufficient, without further discussion, to point out the fact that the movement of investments is not touched by this statement.

While, of course, it is proper and very desirable that items of receipts and disbursements which merely signify that there has been a change in the form of assets should be omitted from the statement, it is very desirable that there should be added to the statement blank inquiries which will call out accurate information as to the details of securities and as to loans upon collateral, together with information concerning any changes that have been made during the year in securities owned and in the securities held as collateral. A recent investigation of a large life insurance company has indicated that it would be wise to require a statement of the cash on hand and deposits in various banks and trust companies to be rendered each and every month, since it has transpired

that amounts held by favoured trust companies were reduced materially just before the annual statement and promptly increased immediately afterward. In the same way a much more serious deception has been practised in more than one instance, which came to the attention of the public, in the form of substitution of securities, just after making the statement. Thus in the case of a life insurance company which failed a few years ago it was discovered that it had been customary to withdraw the good securities which were reported to be on hand on December 31st soon thereafter and to substitute securities which had been disposed of only a short time before December 31st; and recently, as the result of an examination of a company during the autumn months a similar condition was shown, the company being possessed of securities of a poor quality when the examination was made, for which unexceptionable bonds and stocks had been substituted by the time the annual statement was called for.

As a means of preventing extravagance, or at least of rendering policyholders fully acquainted with its proportions, it has often been suggested that the individual salaries paid to the principal officers ought to be set forth in the statement.

The item of "net amount of uncollected and deferred premiums," also showing the manner

in which the same was arrived at, is not always clearly comprehended. The reason why it appears in the statement is that on the other side of the account reserves are charged against all policies, whether paid for by annual premiums or by quarterly or semi-annual premiums—excepting only industrial policies which are paid by weekly premiums—precisely the same as if all had been paid by annual premiums. On this account it is necessary to take credit for the portions of the annual premiums which have not been paid, and in doing this the loading is deducted.

It will be observed that the items embraced by “suspense account” and “agents’ debit balances” are not admitted and are deducted from the assets.

In the matter of market value of bonds and stocks over book value there has at times been a good deal of discussion as to whether this should appear in statements at all or not. Some have taken the position that stocks and bonds ought to appear in the statement at their cost value except when, after a considerable length of time, the market had shown that the cost value could not be realised, in which case they should be given the market value; but, on the other hand, they should in no case be marked higher than the cost value. The argument in favour of this is that companies buy these securities for the

purpose of investment and not of speculation, and that the state of the market at a particular time offers no indication as to the value which will be realised by the company. This view is so far adopted by the State of New York that the law provides that the values may be fixed according to the range of the market for a reasonable time and need not be determined by the quotations on the closing of the market on December 31st of each year.

The chief item in the liabilities of a life insurance company is the reserve upon its policies. This reserve is usually computed by the Actuaries' Table and 4 per cent. on all policies issued prior to January 1st, 1901, and by the American Experience Table and $3\frac{1}{2}$ per cent. on all policies issued after that date, unless the company elects to have its policies valued by a higher standard.

These tables are not suitable for the valuation of annuities; yet, until very recently, they were uniformly valued by them in all departments. Now a table of mortality adapted from experience derived from annuitants, known as McClin- tock's Table, has been adopted for use in the New York department.

The total amount of outstanding claims in any well-conducted company is certain to be very small, for the reason that life insurance companies are usually very prompt in the payment of their claims.

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The item called in this statement "reserve for contingent guarantee fund," is known in the statements of most companies as "surplus." It consists of the surplus reserved for future dividends upon policies which have not reached the close of their dividend periods.

The item of "premiums paid in advance" constitutes a liability, of course, until the time arrives when the premiums would have been payable in due course. There are two manners of prepaying premiums, viz., one by merely discounting the same at ordinary interest and depositing them on condition that, if death occurs before the premium would have been due, the amount paid, with interest at the same rate, shall be returned; the other, by having the premiums discounted both by lapse and mortality ratios and waiving the condition that the premium is to be returned in event of death before the date when it would have been due.

"The exhibit of policies" is practically self-explanatory. It is customary for the departments to require this to be reported, first, for the business done by the company everywhere, and, second, for the business transacted within the State; and a separate statement of the losses and claims paid and incurred and the premiums within the State collected is also required. If a person intending to purchase life insurance will make a careful study of the statements of the

various companies which are brought to his notice he will find that there is much in them that is interesting and that may be valuable in guiding him in his selection of a company. First and foremost, of course, is the character of the assets of the company. This may be judged not merely by the lists of securities, but also by the returns upon the same and the investment losses or gains during the year. By obtaining the previous statement and comparing the market values also he can ascertain what fluctuations have been taking place.

By means of the statement of business transacted he can learn whether the company is going forward or going back in the volume of new business and whether its rate of lapse is excessive or normal. It is also possible for him to calculate the rate of interest realised upon the mean assets or the invested assets, as he may prefer, and also to compute the ratios of expenses to premiums, which may in some cases have a good deal of significance; but he will do well if he does not permit himself to be led into considering elaborate series of ratios, alleged to have certain significance, which sounds plausible, but is, in point of fact, misleading.

CHAPTER XXXIII

THE GAIN AND LOSS EXHIBIT

IN the summer of the year 1897 the late W. D. Whiting, an eminent actuary and by far the most influential with the insurance commissioners of the country and most frequently employed by them, brought up in the National Convention of Insurance Commissioners a proposal to add to the annual statement form for life insurance companies a gain and loss exhibit. Practically no opposition to the proposal was manifested, and it was adopted by a unanimous vote and was added to the requirements for the statement of the transactions of the companies for that year.

There was nothing further heard of the matter in any public way until after the blank forms for the statements were sent out in the last days of 1897 and the first days of 1898. Then most of the life insurance companies urged the departments not to insist upon their making out of the exhibit. All the State departments, excepting only Connecticut, Wisconsin, Illinois and Tennessee, weakly consented, notwithstanding that

they had voted in favour of the exhibit; but, owing to the fact that nearly all the companies do business in one or more of these States, the publication of the exhibits by them made the facts known as widely as if all the State departments had required it.

The departments of New York, Pennsylvania and Massachusetts were conspicuous in their disapproval of what they had previously approved. The attitude of the Massachusetts commissioner in this matter is and has always been puzzling. In common with practically every incumbent of the office, the present commissioner, in spite of more than one peculiar position, credited to want of clear information on his own part and to following bad advice from others, has enjoyed an excellent reputation for honesty, probity and virtuous intentions. Yet, alone among the commissioners, he at once made an open fight against the gain and loss exhibit, which for the first time gave to the insured an insight into the actual conduct of the business by the companies to which they intrusted their funds on a mutual or participating basis, and for several years he refused to enter the convention because of the presence of this obnoxious exhibit in the uniform blank, approved by the commissioners..

Notwithstanding a strong fight made by the representatives of some of the companies, two

succeeding conventions endorsed the exhibit. The publication of the first statements showed clearly enough why there was strong opposition on the part of some of the companies and no very warm support from any of them. Some showed very small gains, the margins being almost wholly offset by excessive expenses. Some were weak in certain respects, strong in others. One of the bitterest opponents made a good showing in earnings from each source, but its profits from illiberal surrender values were so large that they constituted a serious reflection upon it. More than any other one influence, perhaps, this exhibit led to the complete victory of liberality to policyholders, the company in question being one of the earliest to reform.

After an absence for several years from the National Convention of Insurance Commissioners, the commissioner of Massachusetts returned, but only when W. D. Whiting, the actuarial sponsor of the gain and loss exhibit, was dead, his place having been taken by a younger champion, of far less experience. In the convention, after the re-entrance of the commissioner of Massachusetts, two fights were made. The first was led by him and was to exclude consulting actuaries from the convention, such having been admitted previously when accredited as actuaries of departments. To this there would perhaps be no objection, though the ani-

mus, viz., vengeance for the support of the gain and loss exhibit by consulting actuaries, is obvious. Yet, as has been stated in these pages, the employment of such actuaries by departments to examine companies which they also served had become scandalous. But what the convention did was to except from the rule every resident actuary connected with a department who also did consulting work for companies if not on the basis of a salary or time retainer. Thus they have left the very worst abuse untouched to this day.

The other fight was upon the gain and loss exhibit itself, and was led by the second deputy of the New York department, who was for the first time sent to the convention to represent his department. The conditions were peculiar. With Mr. Whiting dead, and several of the commissioners who originally supported the proposal, out of office, the championship of its continuance was much weakened, and, although it had mustered a majority of the votes theretofore, it had actually been employed by only seven departments altogether, the others discreetly dodging the annoyance of company protests. Moreover, it was known that several departments would probably call for it in any event. And under these conditions the convention voted against the exhibit.

The trouble is that, while most of the com-

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panies had ceased to object strenuously, the public, which needed the information so seriously, did nothing—as is usually the case; and, in consequence, the public servants, wittingly or unwittingly, served the companies—and not even the true interests of the companies—instead of the people.

The commissioner of Tennessee considered his department bound by the action of the convention of which he was a member, although the opponents of the exhibit had never construed their duties in such a fashion. The Illinois department also abandoned it. The commissioner of Connecticut has called for the exhibit from each company every year, but since this action of the convention has not made the individual exhibits public. The commissioners of Wisconsin, Minnesota and South Dakota alone remained faithful, and their reports have been in great demand every year since that time. The interest in this part of the report has caused the commissioner of Minnesota to reprint in pamphlet form the gain and loss exhibit, and it has had a wide circulation. Leading insurance papers also republish a wealth of tables and ratios from it, and a consulting actuary, residing in Massachusetts, every year publishes the same in more detailed form for the use of agents and insured.

The following is the form of the exhibit:

GAIN AND LOSS EXHIBIT DURING YEAR
OF STATEMENT

CREDITS.

Divisible surplus, December 31st, '04.....	\$
Total gross premium receipts.....	\$
Deduct total net premiums.....	\$
Loading earned.....	\$
Interest, dividends, and rents.....	\$
Profit and loss items.....	\$
Interest earned.....	\$
Increase in market values.....	\$
Expected mortality on insurance.....	\$
Deduct expected mortality on reserve....	\$
Expected mortality on net amount at risk	\$
Expected payments on annuities.....	\$
Deduct reserves expected to be released by death	\$
Expected net payments on annuities.....	\$
Reserves released on surrendered and lapsed policies.....	\$
(Of the above \$. . . was from policies upon which three years' premium had not been paid.)	
Dividends released on surrender and lapsed policies.....	\$
Credit balance unaccounted for.....	\$
Total credits.....	\$

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DEBITS.

Expenses incurred: Insurance.....	\$
Expenses incurred: Investment.....	\$
Total management expenses.....	\$
Interest required to be earned to maintain reserve	\$
Death losses incurred.....	\$
Instalment death claims incurred (com- muted value).....	\$
Total debits.....	\$

Deduct:

Reserves released by death of insured....	\$
Compromises on losses.....	\$
Actual net mortality on insurance.....	\$
Annuity payments incurred.....	\$
Deduct reserves released by death of an- nuitants	\$
Actual net payments to annuitants.....	\$
Cash values paid for surrender and lapsed policies	\$
Values applied to purchase extended in- surance	\$
Values applied to purchase paid-up insur- ance	\$
Total surrender values.....	\$
(Of the above \$.... was for policies upon which three years' premiums had not been paid.)	

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Dividends to policyholders.....	\$
..crease in deferred apportioned dividends	\$
Total dividends incurred to policyholders	\$
Dividends to stockholders.....	\$
Special credits or reserves to policyholders not herein provided for (state name)....	\$
Debit balance unaccounted for.....	\$
Divisible surplus, December 31st, 1905.....	\$
Total debits.....	\$

Source of net gains or losses, distributions to policyholders and payments to stockholders: .

Divisible surplus December 31st, 1905..	\$
(a)—From loading.....	\$
(b)—From mortality.....	\$
(c)—From annuities.....	\$
(d)—From surrender and lapsed policies..	\$
(e)—From surplus interest.....	\$
Total realised.....	\$
..crease in market values.....	\$
Surplus earned (or lost) during the year..	\$
Total	\$

DISTRIBUTIONS FROM SURPLUS.

Dividends paid policyholders in cash....	\$
Dividends applied by policyholders in reduction of premiums.....	\$

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Dividends applied by policyholders to purchase paid-up additions.....	\$
Dividends paid stockholders.....	\$
..crease in unpaid dividends.....	\$
..crease in deferred dividends.....	\$
..crease in special credits or reserves to policyholders	\$
Surplus applied during the year....	\$

State present basis of computation—

Divisible surplus December 31st, 1905.	\$
Mortality table, or tables.....	
Interest rate, or rates.....	

Insert the words “gain” or “loss,” “increase” or “decrease” in each case, whichever may be required.

This exhibit is really nothing more nor less than a “profit and loss” statement, such as every business firm and company requires to be taken off at least once a year for the information of all parties in interest. The policyholders in all mutual companies and the holders of participating policies in other companies are parties in interest. They have every right to know what profits are earned and whence derived, what salvages have been made and how the margins have been disposed of, and not only should such

an exhibit, as complete and intelligible as possible, be required of every company, but every company should also be required to put a copy in the possession of every policyholder.

Of the value of the exhibit, Hon. John A. McCall, president of a leading life insurance company, and known as the most able, efficient and unswervingly upright insurance superintendent New York has had, made the following statement before the National Convention of Insurance Commissioners in 1898:

“As it is the province of history to teach us how we may avoid the mistakes of our predecessors, I venture to suggest the following as some of the safeguards suggested by this study:

“1. The utmost care in making investments, security to be always the paramount consideration.

“2. The necessity of frequent revaluations of securities, and of their rigid adjustment to changing conditions.

“3. The close study of a company's business *upon the principles of the ‘Gain and Loss Exhibit,’* now required by several insurance departments.

“4. The assumption, for purposes of practical administration, of a higher standard of re-

serve than that by which the company's solvency is tested under the law."

Some of the objections that have been brought to it—part of which are good reasons for asking for its amendment, but none valid arguments for doing away with it—are as follows:

First. Under "loading earned," as compared with "expenses incurred," the company which employs the preliminary term plan gets credit, not for more loading in the aggregate throughout the life of a policy, but for a larger part at the outset. Also companies do not "load" alike, some adding little and others much. Therefore, this is no test of economy.

Granted. This is a profit and loss statement. It shows what the company has left, if anything, from its own provision for expenses, and it has done something and may do more to cause companies to cut off unnecessary expense.

Moreover, it can easily be made a test of economy both in management and in cost of new business by dividing the statement into two parts, one showing the loading and cost of new business for the first year of insurance, and the other the renewal margins and the expenses of management. The commissioner of Wisconsin has extracted this information, and, although he does not publish the figures for individual companies, he gives the following totals for the business of the year 1903:

POLICIES IN FORCE LESS THAN ONE FULL YEAR—
THIRTY-FOUR COMPANIES.

Total expected death losses, American Experience Table.....	\$ 9,144,952.66
Total actual death losses incurred (not deducting reserves).....	5,157,637.50
Total loading on first year's premiums collected.....	12,795,932.91
Total expenses chargeable to first year:	
1. Commissions ..	\$25,525,078.17
2. Other expenses.	11,101,091.72
Total expenses first year.....	\$36,626,169.90
Total renewal premiums received..	\$241,986,533
Total expenses.....	\$71,276,612
Less first year.....	36,626,170 \$34,650,442

By means of such tables for each company, if provided, the policyholder or applicant could apply a reasonably just test of economy in first-year expenses and in expenses of management to every company.

Second. The items, "interest, dividends and rents, profit and loss items, increase or decrease in market values," on one side, and "interest required to make good the reserve," on the other, will show a much larger profit in a company carrying a large accumulation of surplus under deferred dividend plans than in one car-

rying a smaller surplus, though the latter may be realising a better rate.

True; but the larger surplus really is earned, is it not? What should be done to remedy this is under the head, "Distribution from Surplus," at the foot of the exhibit, to require the full net interest, actually to be credited to the accumulation of surplus, to be so dealt with.

The inclusion of changes in market values is also criticised; but to the extent that they are voluntarily or compulsorily embraced in the statement of resources and liabilities, they certainly should be included here. A profit and loss statement must accord with the rest of the report, *i. e.*, must start with the surplus at the beginning of the year, as shown by the financial statement, and close with the surplus at the end of the year.

Third. The item of "expected mortality on net amount at risk," it is said by some objectors, is not susceptible of exact calculation and must be estimated, thus vitiating the entire exhibit.

The objection has only the basis that, when a company attempts to arrive at this directly, it is a tedious process, usually liable also to errors. But it does not need to be undertaken directly. The total gain or loss is shown by reference to the financial statement. Every other item that makes up that total may be ascertained with

ease; the remaining profit or loss is from mortality under or over the expected. The amount of the "actual net mortality on insurance" is readily determined; this, together with the profit or loss on mortality, gives the "expected mortality on net amount at risk," without bothering with the "expected mortality on insurances" and "expected mortality on reserves." The process of elimination here described is the simple and reasonable way to obtain the desired information.

Fourth. Mortality is expected to be higher in industrial companies.

True; but if the industrial companies, voluntarily or compulsorily, get up their statements on the basis of the standard tables, instead of by tables deduced from industrial experience, the apparent profit and loss should follow the statements. To do so merely transfers the apparent profit to the difference between loading and expenses.

Fifth. The items, "expected net payments on annuities" and "actual net payments to annuitants," are likely to show a loss when a gain has really been secured, if the standard tables of mortality among insured lives are used.

But, in the first place, if and when annuities were valued, as they ought to be, by tables deduced from experience with annuitants, the objection would fall to the ground, and, again, if

the financial statement is to show a fictitious surplus by undervaluing annuities, there is no impropriety about making the profit and loss statement correspond. The gains are by this method thrown into the margins on loadings of premiums.

The foregoing are the chief objections that have been urged, usually speciously and because companies did not enjoy the disclosures which the exhibit makes of defects of management. The objections could be obviated very easily so far as they call for remedies or improvements, and ought to be, as follows:

By stating the loading upon premiums for the first year of insurance separately and also expenses for that year.

By stating expected and actual net mortuary losses for the first year separately.

By requiring industrial insurance mortality, both expected and actual, to be stated separately, using a proper table to measure it.

By requiring margins on non-participating business to be computed and reported separately.

By requiring the interest for the accumulation of deferred dividends to be set aside definitely for that purpose.

By requiring the expected net payments on annuities to be computed according to a life table from the experience with annuitants.

Even in the absence of these amendments, however, the gain and loss exhibit is, next after the financial statement, much the most valuable guide a person intending to purchase life insurance can have, both in regard to the company's prospects for success and also in regard to the earnings currently realised for holders of participating policies.

Its utility as an indication of a company's prospects has been shown very clearly in several instances. Thus the failure of a certain small New York company was plainly forecast by it, for several years, and the recent troubles of two others of the smaller companies were quite as plainly foretold several years in advance.

Lawmakers could perform no better service for the public than to enact laws requiring this exhibit to be made each year by every company in as simple and self-explanatory form as possible, and a copy to be sent, with a copy of the company's financial statement, to each policyholder. The exhibit can be made, as has already been proved, a most powerful engine to secure reform of methods which now prevent life insurance from being as beneficial and economical as it should be and cause it only too often to be purchased under a misapprehension as to the earnings and the prospects for dividends.

CHAPTER XXXIV

HINTS AND HELPS IN PURCHASING LIFE INSURANCE

IN purchasing life insurance the intending applicant has the following matters to consider:

1. His own requirements and responsibilities.
2. His ability to pay premiums.
3. The soundness of the company's plans.
4. The solvency and strength of the company.
5. The earning power of the company.
6. The dividends actually paid to individual policyholders.
7. The terms and conditions of its policies.

Upon each of these something may be said for his guidance.

Every man is, from the very fact that he is a man, subject to the risks of personal disability and of premature death, as well as certainly destined to die some day. Therefore, the occasion for life insurance always exists. But the need for it is sometimes not so obvious, and the amount required, as well as the form of policy most suitable, depends upon conditions peculiar to the individual.

Any man, perhaps, would be unwise, in view of possible future engagements, to assume that he will never have reason to protect any person against loss by his death, merely because no person at this time has such claims upon him. Yet it must be acknowledged there are now and then individuals who know to a moral certainty that there will be no need for insurance upon their lives.

As to the average man, it might safely be premised already in his infancy that he will require, in order to cover the financial loss to others that will be caused by his death, if he lives to, say, age 25, a certain minimum amount of life insurance—sufficient to support, in a very economical fashion, a widow and one or more children. And, on several grounds, it would be well if, in the same manner that parents make other provisions for the future responsibilities of their children, they were to provide for the going into force, promptly upon the young man's attaining his majority, for instance, of a moderate amount of life insurance at a minimum cost. This can be done at a very small annual investment by the parents during the boy's minority, securing for him the attaching of the insurance at age 21, without regard to the then state of the health of the insured and at the same low rate. Thus by the payment from birth of \$8.55 per annum, returnable if the boy dies

before 21, an insurance of \$1,000 of the sort described might be furnished, paying the company the same margin of loading as one beginning at 21, which would cost \$19.62 per annum, and which would have much less value. Since, also, by reason of personal condition or of changed family history, many of the boys who reach 21 will be uninsurable and so unable to cover their responsibilities, by life insurance, if not provided for in this way, it is evident that this small investment would be a wise one.

But, in any event, there can be little doubt that every young man at the outset of his adult life, whether already burdened with the responsibilities of a family or not, has such probabilities that there will, ere long, be interests depending upon his survival which it will be his duty to guard and that he may, when that time comes, not be safely insurable, that he is not warranted in deferring taking on that reasonable amount of life insurance which will provide bare necessities for those who may be dependent upon him.

How much ought this to be? The answer must necessarily differ with the conditions; but it is, perhaps, safe to say that for the average clerk, employee, small tradesman, skilled workman and the like in the larger cities, it should be sufficient to produce an income for twenty years of not less than \$500 per annum. This, discounted at interest at 4 per cent., would call for an insur-

ance of nearly \$7,000. If the policy is taken out promptly upon attaining majority, it would cost, at the lowest whole life non-participating rates, \$105.07, or about one-tenth of the average income, perhaps, of the members of this class and much more than that percentage of the income at the outset. Delay will result in a higher cost also. The purchase of participating policies, also, would increase the cost about 40 per cent. at the outset, but if the company has been carefully selected and if the dividends are drawn annually in cash, the net cost may be as low or lower. It is worthy of note that, on the same basis as the non-participating rates are computed, a similar policy, secured by the parents paying from the birth of the child, would cost from the boy's majority only \$6.54 per \$1,000, or \$45.78 per annum in all.

In the smaller cities, towns and villages about two-thirds of this provision, or, in round numbers, \$4,500 to \$5,000 of life insurance, will answer, and day labourers in town and country, according to the usual scale, require a minimum provision of, say, 40 per cent. of the sum first mentioned, or a life insurance of from \$2,500 to \$3,000. In each case, if the insurance be taken at once upon attaining one's majority, the cost should not exceed 10 per cent. of the average earnings. Some increase in this ratio of cost to income is justifiable, surely, in order to secure a

corresponding protection against disability by accident or disease and a provision for old age; the necessary increase, if the insurance is taken at the age of 21, would be to about 12 1-2 per cent. to 14 per cent. of the income. A diminution of the total life insurance by from one-third to two-thirds below this proper minimum in order to increase the element of investment so as to defer the dividends for twenty years, to pay for the policy in twenty years or to mature as an endowment in twenty years or less, or anything of the sort, is an abuse of life insurance, the purchaser being seduced by the hope of personal gain into failing to perform his full duty. The only conceivable defence for this is that many a man has been lured into performing some part of his duty by the absurd expectation that, after furnishing insurance for twenty years, the policy would yield impossible profits.

Efforts have been made from time to time to determine scientifically the value of a man's life in order to fix the amount of insurance that he should carry. The usual course has been to compute the present value of his surplus earnings—some would use the entire earnings—for the term of his expectancy, as if he were certain to live that long and no longer, or else the present value of an annuity upon his life for this amount. Neither of these methods accords with

the facts, which call for the elimination of the period of old age and also for deduction for probable loss of time by disability, provision against which cannot be made by life insurance, but must be made, if at all, by health and accident insurance. The argument is that if a man owns a building, producing a certain rental income, he insures against the loss of that income by fire, and so he should against this loss of income. But a man does not take fire insurance to provide an income, but merely to cover the value of the building alone, *i. e.*, to enable him to build again, and in taking life insurance a similar rule calls for considering what is intended to be accomplished, and the wise man makes the provision which is actually required, or is likely to be, for the maintenance of those to whom he owes that duty.

To pay up the insurance in a short term or to cause it to mature at a given age, if the insured survive, are in themselves desirable; but they are justifiable, as has been said, only in case a sufficient provision against the financial loss because of the insured's death has actually been made. When the policyholder has secured, therefore, the protection for those dependent upon him which he knows will be requisite in order to enable them in event of his death to be maintained as he would have them maintained, he can with propriety increase the amount of his in-

vestment in order to mature the policies as endowments, for instance, or to pay them up in a short period; but, even in that case, in view of the possible turns which fortune may take, he ought to insist that these policies be convertible into whole life insurance, upon favourable terms, at the end of any year, so that he may be as nearly certain as possible that he can keep the insurance in force.

Proper attention to the question of the soundness of the plans of insurance offered by a company is requisite also. In every community there can be found aged men and men otherwise infirm and uninsurable who relied upon an unsound plan of insurance which could not and did not "finance out," as the expression goes, but instead either left them without protection or called for an outlay so much higher than was anticipated and than would have been necessary, if paid from the outset, that they could not continue. Even as "temporary protection," for which many men who carry insurance of this nature have taken it, it is not desirable unless the applicant has a sufficient amount of insurance upon sound plans already, and not then unless he is prepared to meet the inevitable increase in rates without complaint, or, as is his privilege, to drop out without resentment.

Legal reserve companies may usually be relied upon to be offering sound plans, but now

and then this has not been the case, owing to the remissness of State officials, as, for instance, when "investment bonds" were permitted to be sold. Yet all that a legal reserve company actually guarantees is sure, so far as sound plans can make it sure, because the reserve held, together with the future premiums, will at least enable the performance of all that was guaranteed. But promises that are not a part of the guarantees should be accepted with great caution.

Some of the fraternal societies are now operating on sound plans and with adequate rates. Two of them carry the full legal reserve, and, while charging lower rates than regular life insurance companies because managed less expensively, are on as sound a basis as any regular company. Several others have adopted adequate rates and have made proper provisions for accumulating reserves. Some others have approximated this condition and will doubtless make other changes later to make the reapproachment complete.

The solvency of a company depends upon something more than the soundness of its plans. "Sound plans" has reference to the mathematical sufficiency of its premiums, but their actual sufficiency depends upon the following:

The mortality not being higher than as per the table employed.

The expenses and contingencies not absorbing more than the loading.

The funds being safely invested and yielding interest at least equal to the assumed rate.

One or even two of these may not be true in a particular case, and yet solvency may be maintained because the loss by these is more than offset by the margin of profit in the other. There might even be an instance also of mere solvency being assured by gains from forfeitures, though all three of these were to show a loss. But solvency on such terms is precarious.

The character of the assets is also a most important determinant of the solvency and strength of a company; but the policyholder must not be misled by the appearances into supposing that an extremely long list of quoted securities is conclusive evidence of a company's superiority. The contrary is the case, in some instances, at least. Life insurance companies have little occasion to realise quickly, and the possession of too long a list of quoted bonds and stocks might mean that the management is speculating upon variations in quotations.

The existence of a considerable surplus is deemed an evidence of strength, as indeed it is. But the best evidence of strength and security, beyond mere solvency, is continued and unabating margins of surplus from year to year, especially if liberally contributed by each of the

sources mentioned. Better proof of fundamental vigour can hardly be expected and is rarely to be had.

A study of the gain and loss exhibit is important, therefore, even though the applicant purposes purchasing non-participating insurance, for it goes to the question of the strength of the company. But it is of yet greater importance if the policy is to be participating, because in that way only can the applicant obtain a good general idea of the relative prospects for surplus-earning of the various companies.

Yet the thing of the greatest significance—always supposing that a company is not dividing each year more than was really earned—is the actual dividends paid to individual policyholders. Not the total dividends paid and allowed, but the actual payments to each individual policyholder. If the applicant is going to buy an annual dividend policy he should require the candidates for his favour to show him the scale of annual dividends, actually paid in the current year by their respective companies upon policies one year old, two years old, etc., of the exact kind he is considering and issued at his exact age. Or, if the company will not furnish this schedule—and why a company should refuse to do so unless conscious of its inferiority it is hard to see—he should insist upon the records of, say, four such policies, names and addresses being

given, issued respectively five, ten, fifteen and twenty years ago, each with annual dividends.

As to deferred dividends, companies that have completed such periods usually furnish actual results as illustrations; but it is necessary for the applicant to bear in mind that interest was higher and expenses lower years ago and that these results are not very likely to be duplicated. He should also examine the statement of the company and its gain and loss exhibit carefully to ascertain whether the company is actually earning a good margin of surplus and carrying such an accumulation as the sample dividends would call for, or appears, on the other hand, to be paying these dividends which should have been accumulating for years, wholly or in large part from current earnings.

If it is possible for the applicant to learn whether the company is known to pay excessive commissions—which he may usually do upon careful inquiry—that is also a strong indication whether good dividends are to be expected. The companies whose entire expense for new business is far within the percentages named in a previous chapter on this subject are invariably paying excellent dividends, while several companies which of old had unexcelled reputations for the payment of dividends have fallen far back since they adopted extravagant scales of first year's commissions.

Especially when the applicant is offered a very liberal rebate should he be suspicious that the commissions are too high to enable the company to pay its policyholders so good dividends, as if it were to pay no commissions whatever and do little new business, instead of better.

The applicant should inspect with great care the policies submitted to him, comparing them with the requirements, set forth in a previous chapter, for "The Ideal Policy." A general and insistent demand for the best will cause all good companies to write them. He should carefully take into account the possible exigencies of his own future and aim to take a policy which will not embarrass him unduly, without regard to the changes which may take place in his condition physically, but will be a friend, no matter what happens.

CHAPTER XXXV.

REMEDIES

NOTWITHSTANDING that this book has had to do chiefly with the merits and beneficence of the institution of life insurance, there have been found flaws and errors which required notice and criticism, and it would not be fair to leave the reader without a suggestion as to the appropriate remedies.

First and foremost, the lessons of life insurance history, enforced by recent events, demonstrate that the formation of purely mutual companies, required by law to maintain solvency, should be encouraged. The organisation of mutual societies to operate on unsound plans, on the other hand, should not be permitted.

At present precisely the contrary is the fact. Mutual companies may be organised freely to operate on unsound assessment plans, but may not be organised at all under the legal reserve laws. Whether this came about through the cupidity of existing companies, desiring a monopoly, or through the stupidity of legislators who, being influenced by no present interest,

calling for such powers, blindly shut the door against the enterprise of the future generations, does not much matter. It has resulted in the evils of assessmentism assuming gigantic proportions and also in many grievous ills in life insurance companies operating on sound plans.

No remedy can go to the root of the matter, therefore, which does not provide for the organisation of regular mutual companies. That is the first essential thing for a good law.

The second is to enable the mutual company to conduct its business successfully, while maintaining complete solvency. Under existing conditions this cannot be done, except by employing the subterfuge of making the first year's premium, in part or wholly, a one-year term premium, and this also is not permitted in at least one important State. What is needed is that the legal reserve requirements follow the facts and do not charge companies a reserve to cover a higher mortality during the first five years of insurance than will be experienced. but instead, by computing the true liability as exactly as possible, set free the funds which on a most economical basis are required in order to secure the benefits for all which accrue from the accession of new members.

Such a modification of the reserve laws, so as to admit of the use of what is known as "select and ultimate" reserves during the first five

years, should, of course, be permissive only, leaving companies free to employ a higher reserve standard if they choose, but it should be the minimum standard because fairly a test of solvency on the basis of participation as provided by the premiums.

If there be no such modification—or if resort be not had to preliminary term, as stated—the mutual company cannot meet its expenses for the first year of insurance, out of the “loading” in the usual premium, and so cannot succeed, unless by being placed under financial obligations for money advanced to purchase business—always a serious thing and usually a means of unlimited “graft.” It results also in participating premiums being higher than would otherwise be necessary.

A bill modifying the law as stated was passed by the New York Assembly in 1905 and was on third reading in the Senate when it adjourned. It was not pressed for passage, because unexpected opposition was encountered; but it had been approved by leading experts and by several of the principal companies.

It is often proposed to limit commissions, or even the total expenditure for new business, by law, to a certain proportion of the new premiums or to the loading upon the first year's premium.

Were the latter attempted, the tendency to

higher premiums would be more pronounced than now, and the law would, besides, be evaded continually, of necessity, unless the company resorted to preliminary term, in which case the statute would be valueless as a restraint upon wastefulness, if the whole premium on limited-payment life and endowment plans were treated as being paid for by one-year term insurance.

If the reserve laws were rectified, so that small and new mutual companies, operating on sound plans and maintaining complete solvency, could be established wherever desired, the required reserve being what is reasonably needed for solvency, these companies, with their economy and their lower premiums, would perhaps set such a standard of economical efficiency that compulsory regulations would be unnecessary. Indeed, more than one of the larger companies would make use of this natural limitation of profitable expenditure promptly.

In the reports of companies the following things are greatly to be desired, viz.:

Complete returns of investment and loan transactions throughout the year.

The gain and loss exhibit, made mandatory and not at the option of the commissioner, and perfected, especially so as to distinguish between participating and non-participating, ordinary and industrial, expenses and losses for the first year and for other years.

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Scales of dividends, actually paid or allowed the year previous, on the different classes of policies issued, for several sample ages and for all durations, and statements showing the accumulations per \$1,000 under different forms of deferred dividend policies.

In the management of mutual companies the prohibition of proxy voting, and the introduction of direct voting by mail, or in local meetings by secret ballot.

A provision permitting the retirement of capital stock in all companies operating on the mutual or participating plan by the payment of just compensation.

Other things of minor moment could be suggested, but the foregoing amendments to existing laws and practices would render most of the things nowadays complained of impossible or highly improbable, and would also enable the policyholders to judge discerningly of companies and policies. In other words, the best thing to secure both soundness and the largest returns to policyholders is what was most warmly recommended by Emory McClintock, actuary of the Mutual Life Insurance Company of New York, at the National Convention of Insurance Commissioners in 1898:

FREEDOM AND PUBLICITY.

THE END

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